



The Impact of International Trade Agreements on Household Food Security

A Case of India

Surjit Singh

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Preface

Although given prominence in the context of the current International Trade Agreements, trade negotiations, trade reforms are a component of a wider set of economic and institutional reforms. The complexity of trade reforms, the wide variation in policy sets, the context within they are used, and the thoroughness with which they are followed through, makes it extremely difficult to isolate the impact of specific trade reforms on the food security status of India.

The primary focus of this case study is on the agriculture sector and the impact that trade agreement can have on its ability to contribute to improved food security in the context of wider structural change that result from agreements. While any trade agreement that changes the balance between liberalization and protection for a good or services in an economy can affect levels of food security, agriculture related reform is especially relevant because: a) agriculture is one of the central contributors to food security in India, b) agriculture is one of the most heavily indistinguishable sector and has received significant attention in recent rounds of trade negotiations.

The majority of people in India belong to farming families. Most of them are marginal and small farmers; with at best a few hectares of land and sometimes much less. The problems for these farmers caused by cheap imports, made possible by trade agreements comes significantly. Competitions from cheap imports are putting farmers in developing countries out of business. Domestic food production and household food security is at risk as the agriculture sector is placed in jeopardy.

In the view of the above, this case study looks at International trade agreements and its impacts on household's food security in India.

The similar studies were undertaken in five countries i.e. Brazil, Kenya, India, Bolivia, and Uganda.

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Justice V.S. Dave

Chairperson

Summary

Introduction

International trade is the exchange of capital, goods and services across international boundaries or territories. Food security has been generally viewed in terms of three components viz., availability, access and utilization. At national level food security means the availability of sufficient stocks of food in the country to meet domestic demand till such time as stocks can be replenished from harvests or imports. At household level, it means that all members, including women and children, have access to the food as they need, either from their own production, from market and/or from the government's transfer mechanism.

Objectives

1. To show the impact of trade liberalization framed in international trade agreements (in particular WTO's Uruguay Round Agreement and Agriculture and the Doha Development Round), on food security of above mentioned specific groups.
2. Specifically, the study tries to show the impact of international trade agreements on the availability of adequate food (food basket) at household level of the target group.
3. Further this study will show the impact of international trade agreements on the access to adequate food.

Methodology

Primary as well as secondary data have been used in the study. Primary data is collected through field survey. Secondary data includes internal and public documentation including project documents from the past. The study is placed in two geographic areas to compare the results. For the study two areas located in Rajasthan were chosen with prior knowledge on whether they are more exposed to WTO changes and less exposed to WTO changes. Within each area, a sample of 350 marginal and small farmer households were chosen. Within each region also less and more exposed groups were selected. A total of 700 households formed the sample.

General Observations

The economy of Rajasthan is primarily agriculture based and it provides livelihood to 77 percent of the rural population. The agriculture sector of the state accounts for 22.5 percent. The per capita income at 1999-2000 prices was Rs.9721 in 1999-2000 that went up to Rs.11378 in 2005-06. The rural poverty line in Rajasthan as per the MRP consumption (mixed recall period) in 2004-05 was defined as Rs.374.57 and urban poverty line as Rs.559.63 (Rs. per capita per month). The monthly per capita expenditure of 26.5 percent in rural Rajasthan is below Rs. 410 and only 9.5 percent have MPCE of Rs. 890 or more. In rural Rajasthan, the percentage of households where all the members got enough food everyday throughout the year improved from 98.5 percent to 99.7 percent during the period from 1993 to 2000.

Demography of Sample Households

The sample comprise of 50.29 percent marginal farmers in more exposed region compared to 57.14 percent in the less exposed region. These farmers possess land below one hectare. The rest are small farmers, and possess land between 1-2 hectares. Further 94 percent head of the households are married in more exposed region compared to slightly lower proportion (93%) married in less exposed region. In more exposed region, 47 percent of head of households are illiterate compared to 56 percent in less exposed region.

House Food Security

It is quite an eye opener that 9.71 percent of households in 2007 in more exposed region purchased food as against 32.29 percent in less exposed region. Own production did contribute to food security in both the regions, though slightly higher proportion was observed in more exposed region. The first most important factor that determines household food security trends since 1995 as reported by woman in more exposed region was subsistence farming; 35.71 percent women reporting it followed by access and availability to seeds (18.29%) and employment level (15.14%). The second factor determining the trend in food security since 1995 in more exposed region was access to and availability of fertilizers (15.43%), income generation activities (15.14%), nutritional value of food intake (13.14%), income level (12.57%) and subsistence farming (5.71%).

Economic Activities

One-tenth of heads of the household were not engaged in agriculture in the year 2007 in more exposed region while this was 16.29 percent in less exposed region. 65.43 percent heads were engaged in non-farm economic activities in 2007 in more exposed region compared to 50.86 percent in 1995. In case of less exposed region, 76.57 percent heads were engaged in non-farm economic activities in 2007 in more exposed region compared to 52.00 percent in 1995. There are other economic activities like masonry, private job, government job, driver, tailoring; pottery, priesthood, painting work and sweet making the heads were engaged in besides the agriculture. This means that compared to 1995 heads had to move out from agriculture and raise family income and it happened more in less exposed region.

Housing Characteristics

All the sample households had own houses, though the type of house may vary in terms of number of room, brick made or thatched, having facilities or not. Houses may also not have drinking water source within the house. 26.86 percent households in more exposed region have piped into dwelling type of drinking water source compared to just 1.14 percent households in less exposed region. Most of the households mainly use open field for toilet purposes and the proportion of such households are higher in less exposed region compared to more exposed region. 62 percent households have electricity, 34.29 percent have radio/tape recorder, 32.29 percent television,

9.71 percent refrigerator, 39.14 percent bicycles, 15.14 percent scooter/ motorcycles, 2.29 percent car, 6.86 percent camel cart, 7.14 percent bullock cart and 4 percent tractors in more exposed region.

Conclusion

The study has shown that the impact of WTO trade agreements is not very explicit in Rajasthan. Since 1995, changes in consumption behaviour have occurred and more exposed region is visibly showing greater changes since 1995. Green vegetables, fruits, meat and milk products are not regularly used in both the regions. This would naturally have impact on nutritional level. Prices have gone up across the board in Rajasthan and those with lower incomes have been affected the most. These are mainly in less

exposed region. The price rise is more due to demand supply imbalances. Domestic policies under liberalization regime in India have also raised the prices as subsidies have gone down. India does not import agricultural commodities to a large extent and so impact on domestic users is not very clear. There is a shift in consumption basket which has to do more with local conditions. For instance, if wheat is being increasingly consumed, it has to do with many other factors including women's work outside home, less time to cook, etc. However, cooking oil import has adverse impact on local production and consumption.



1. Introduction

1.1 Background

International trade is the exchange of capital, goods and services across international boundaries or territories. While international trade has been present throughout much of history, its economic, social, and political importance has been on the rise in recent century. Industrialization, globalization, advanced transportation and multinational corporations are all having a major impact on the international trade system. Traditionally trade was regulated through bilateral treaties between two nations. For decades most nations had high tariffs and many restrictions on international trade. In the 19th century, a belief in free trade became paramount. In the years since the Second World War, controversial multilateral treaties like the General Agreement on Tariffs and Trade (GATT) and World Trade Organization have attempted to create a globally regulated trade structure. These trade agreements have often resulted in protest and discontent with claims of unfair trade that is not mutually beneficial.

Agricultural lobbies, particularly in the United States, Europe and Japan are responsible for particular rules in the major international trade treaties which allow for more protectionist measures in agriculture than for most other goods and services. In the recent years regulation of international trade is done through the World Trade Organization at the global level but many multilateral trade agreements have failed due to various reasons.

1.2 Food Security

Food security has been generally viewed in terms of three components viz., availability, access and utilization. Availability concerns the ability of the country to provide enough food for its ever-increasing population. Access relates to the ability of the population to obtain enough food necessary for an active and healthy life and the utilization refers ability to have safe and nutritious food. The food security issue requires to be addressed both at national and household levels. At national level food security means the availability of sufficient stocks of food in the country to meet domestic demand till such time as stocks can be replenished from harvests or imports. At household level, it means that all members, including women and children, have access to the food as they need, either from their own production, from market and/or from the government's transfer mechanism. However, even when national food security is achieved, individuals and groups in the country may still go hungry because they do not have the means to access food. Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (World Food Summit, 1996) Food security exists when all people at all times have both physical and economic access to sufficient

food to meet their dietary needs for a productive and healthy life (Reily et. al.1999) Food security is defined as the access by all people at all times to enough food needed for an active and healthy life (Reutlinger, 1995) Its essential elements are the availability of food and the ability to acquire it. Household-level food security is defined by FAO Committee on World Food Security (1992) as "A household is food secure when it has both physical and economic access to adequate food for all its members and when it is not at undue risk of losing such access. Issues of food security also extend to within the household." Gender is also a determinant of access within poor households. Within a poor household, women (mother, adolescent and child) may have less access to an adequate balanced diet than the male members (Singh and Joshi, 2008). The full and equal participation of men and women is essential for achieving sustainable food security.

The issues of food security of access and availability in the light of the target group, namely, small and marginal farmers are also important in the context of emerging trade regimes. The question is whether this group having land holding up to one hectare who most of time can produce sufficient from their own production to meet their own family needs. The answer would vary from ecosystem to ecosystem and will depend on the extent of shared landholding. What is apparent here is that for small and marginal farm households, food security can be derived through different elements. Following are these elements:

Food availability: Improved production itself (cereal and non-cereal) may make up the household deficit. Increased non-farm income may offset the food deficit months and improve food security.

Socio-economic and political framework: A change in the political environment, for example practice of sharecropping laws, may give our more access to his/her own produce that improves food security.

Access to food: A new source of income either on-farm or off-farm will improve the purchasing power of a client resulting in improvement of food security.

The above elucidation further requires two other elements. One dimension is diversity in food consumption as it impacts nutritional status. This is a possible intra-household variation as reflected in gender. The second dimension is the sustainability of the gains in food security. An important element here is the sustainability of the likes to new technology (an organizational component).

2. Objectives and Methodology

2.1 Background

Subsistence agricultural households and micro-enterprises like fisherman, pastoralists, small holders and associated micro-enterprises are survivalist. Food security is their main concern, and their small production units are almost totally dedicated to home consumption. Their assets are poorly developed, and they have very limited access to services (credit) that would enable them to increase the returns to their assets. Their ability to manage risk and associated vulnerability is limited to informal means, thus severely constraining their ability to take on higher risk, higher return livelihood opportunities. Many live in fragile ecosystems or less favored regions and depend on off-farm employment for a significant percentage of their livelihood. This group embraces many women and female-headed households, who are among the poorest and most exposed in rural areas. The social sphere of these rarely extends beyond local communities, and their voice is almost unheard in the broader socioeconomic and political affairs shaping their lives. The economic fortunes of rest of the world greatly affect such rural group's employment and income-earning opportunities, and sustained periods of growth give some the option of leaving subsistence production altogether.

2.1 Objectives

To assess the impact of International Trade Agreement on above mentioned groups in India, the present study has following objectives:

1. To show the impact of trade liberalisation framed in international trade agreements (in particular WTO's Uruguay Round Agreement and Agriculture and the Doha Development Round), on food security of above mentioned specific groups.
2. Specifically, the study tries to show the impact of international trade agreements on the availability of adequate food (food basket) at household level of the target group.
3. Further this study tries to show the impact of international trade agreements on the access to adequate food.

2.3 Methodology

Primary as well as secondary data have been used in the study. Primary data is collected through field survey. Secondary data includes internal and public documentation including project documents from the past. The study is placed in two geographic areas to compare the results. For this study, two domains are defined in each of two geographic areas in the country:

1. Producer households at or near subsistence level that live in a condition where they are more exposed to the effects of the WTO agreements.

2. Producer households at or near subsistence level that live in a condition where they are less exposed.

The differences of the results in the two groups will constitute the intra-area inter-group comparison: on contrast for each of the two areas. In each domain, a comparison is made between the situation at the time of survey and the situation before the WTO agreements took their effect (1995-96).

2.4 Study Area

For the study, two areas were chosen with prior knowledge on whether they are more exposed to WTO changes and less exposed to WTO changes. The study area is located in the state of Rajasthan which is situated in north-western India. The more exposed area is located near a metropolis of Jaipur and the less exposed area is located in the hinterland and the distance between the two areas is more than 250 kms.

2.5 Sampling

Within each area, a sample of 350 marginal and small farmer households were chosen. Within each region also less and more exposed groups were selected. A total of 700 households formed the sample. For selection of the sample households stratified random sampling method was used.

A structured questionnaire was administered to the respondents. The variables measured in the questionnaire are basically of two kinds: independent variables and dependent variables. The dependent variables (outcomes) refer to household food security, in terms of the specific objectives cited above: the availability of adequate food (food basket) at household level and the access to adequate food. The independent variables are (i) exposure to the impact of international trade agreements and (ii) other determinants or modifiers of household food security. The study design built in the "exposure" to the international trade agreements by selecting two different groups, which differ in their dependence on the market. The groups are grossly comparable in all other aspects, both (2007) now and in 1995, especially in terms of the other possible determinants or modifiers of household food security. Then the difference in change over time between the more exposed and the less exposed group is considered to tentatively represent a measure of impact. Before attributing an effect to a cause one has to investigate the possibility of any alternative explanations (or confounders). In the study we cannot go further than arguing for the plausibility that any impact can be attributed to the international trade agreements. The most plausible reason is that India has only marginal role in agriculture trade, especially imports. It is the domestic policies that have impacted the production behaviour and thereby the consumption behaviour.

Some of the variables are used to provide a background description of the groups, where we hope to find that there are no differences between the more and less exposed group within each area in other aspects than the exposure. The difference over time in household demography will also have to be used to correct other variables for the stage of development of the household, in particular the household size. The two groups within each area are comparable in background characteristics. Some questions have been used to verify that the two groups differ in exposure indeed, in addition to general background information that led to the selection of those two contrasting groups; and to information that has to come from the focus group discussions and the key informant interviews. Other questions refer to the dependent variables. Income related variables are difficult to classify a priori. Income is a dependent variable (an outcome of market access); on the other hand we try to identify two groups who are both among the poor and vulnerable.

3. General Observations

3.1 Background

The economy of Rajasthan is primarily agriculture based and it provides livelihood to 77 percent of the rural population. The agriculture sector of the state accounts for 22.5 percent. As a major portion of the state is parched and infertile, agriculture becomes very difficult. In this harsh climate, women have a tendency to work with cattle and their milking, while the elderly or the young take them out to pastures for grazing. In the past it became necessary to raise cattle for survival, a tradition that has continued to grow, turning the state that has benefited from the 'white revolution'. Further, the total cultivated area of the state encompasses about 20 million hectares and out of this only 20 percent of the land is irrigated. The implication is that agriculture and animal husbandry is the main source of livelihood in Rajasthan.

3.2 Gross State Domestic Product

The Gross State Domestic Product in Rajasthan in the year 1999-2000 at 1993-94 prices is as shown in table 3.1. The growth rate of state income has been fluctuating over the years since 2000. Data show an inconsistent performance of the economy. The per capita income at 1999-2000 prices was Rs.9721 in 1999-2000 that went up to Rs.11378 in 2005-06. In dollar terms, the corresponding values come to \$216 in 1999-2000 and \$253 in 2005-2006 (exchange rate of Rs.45 to a dollar).

Table 3.1: Gross State Domestic Product (1993-94 prices) Rs. Lakh

Sectors	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05P	2005-06Q
Agriculture, Forestry & Fishing	14771	13157	16565	10876	19595	17456	17758
Industry	17262	15851	16326	17180	18678	20243	21855
Services	20887	22763	23744	24691	28169	29154	30878
GSDP	52920	51770	56636	52747	66441	66853	70491
Per Capita GSDP Rs.	9721	9268	9879	9027	11142	10995	11378
Growth rate of GSDP	-	-2.17	9.40	-6.87	25.96	0.62	5.44

Note: P- provisional and Q- quick estimates.

Source: CMIE

The economy of Rajasthan has not been really diversified during the last seven years; there is hardly any structural change (at constant prices). Table 3.2 shows that contribution of agriculture and related activities to GSDP is fluctuating with the lowest share accruing in 2002-03 and reaching 25.2 percent in 2005-06. Industry sector has not observed major swings either way. Service sector has become the major contributor to state income with 43.8 percent share in 2005-06.

Table 3.2: Distribution of Gross State Domestic Product (1993-94 prices) Percent

Sectors	Year						
	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05P	2005-06Q
Agriculture, Forestry & Fishing	27.91	25.41	29.25	20.62	29.49	26.11	25.19
Industry	32.62	30.62	28.83	32.57	28.11	30.28	31.00
Services	39.47	43.97	41.92	46.81	42.40	43.61	43.80
GSDP	100	100	100	100	100	100	100

Source: computed

The rural poverty line in Rajasthan as per the MRP consumption (mixed recall period) in 2004-05 was defined as Rs.374.57 and urban poverty line as Rs.559.63 (Rs. per capita per month). Overall, the number of population below poverty line in Rajasthan in 2004-05 as per MRP consumption (mixed recall period) was 107.18 lakh or 17.5 percent. The corresponding figures for rural areas are 66.69 lakh or 14.3 percent. In urban areas, the number of poor people are 40.50 lakh or 28.1 percent. Rural poverty situation is significantly better than urban poverty in proportion, though the concentration of poor is in rural Rajasthan.

The population below poverty line in Rajasthan in 2004-05 as per the URP consumption (uniform recall period consumption) was 134.89 lakh or 22.1 percent. The corresponding figures for rural areas are 87.38 lakh or 18.7 percent. In urban areas, the number of poor people are 47.51 lakh or 32.9 percent. Rural poverty situation is significantly better than urban poverty and this could be the result of various schemes being run in the state.

3.3 Per Capita Expenditure

The monthly per capita expenditure (MPCE) of 26.5 percent in rural Rajasthan is below Rs. 410 and only 9.5 percent have MPCE of Rs. 890 or more. On the other hand, in urban Rajasthan, the corresponding proportions are 46.0 percent and 7.4 percent. It is observed that only 3.4 percent population in rural Rajasthan have MPCE of Rs.270 or less while this percentage is 10.4 in urban Rajasthan. This would reflect in nutrition intake of the urban population. Table 3.3 clearly shows two facts. One that Rajasthan in comparison to the country as a whole is relatively better off. Second that rural Rajasthan is relatively better off compared to urban Rajasthan.

Table 3.3 Monthly Per Capita Expenditure in Rs

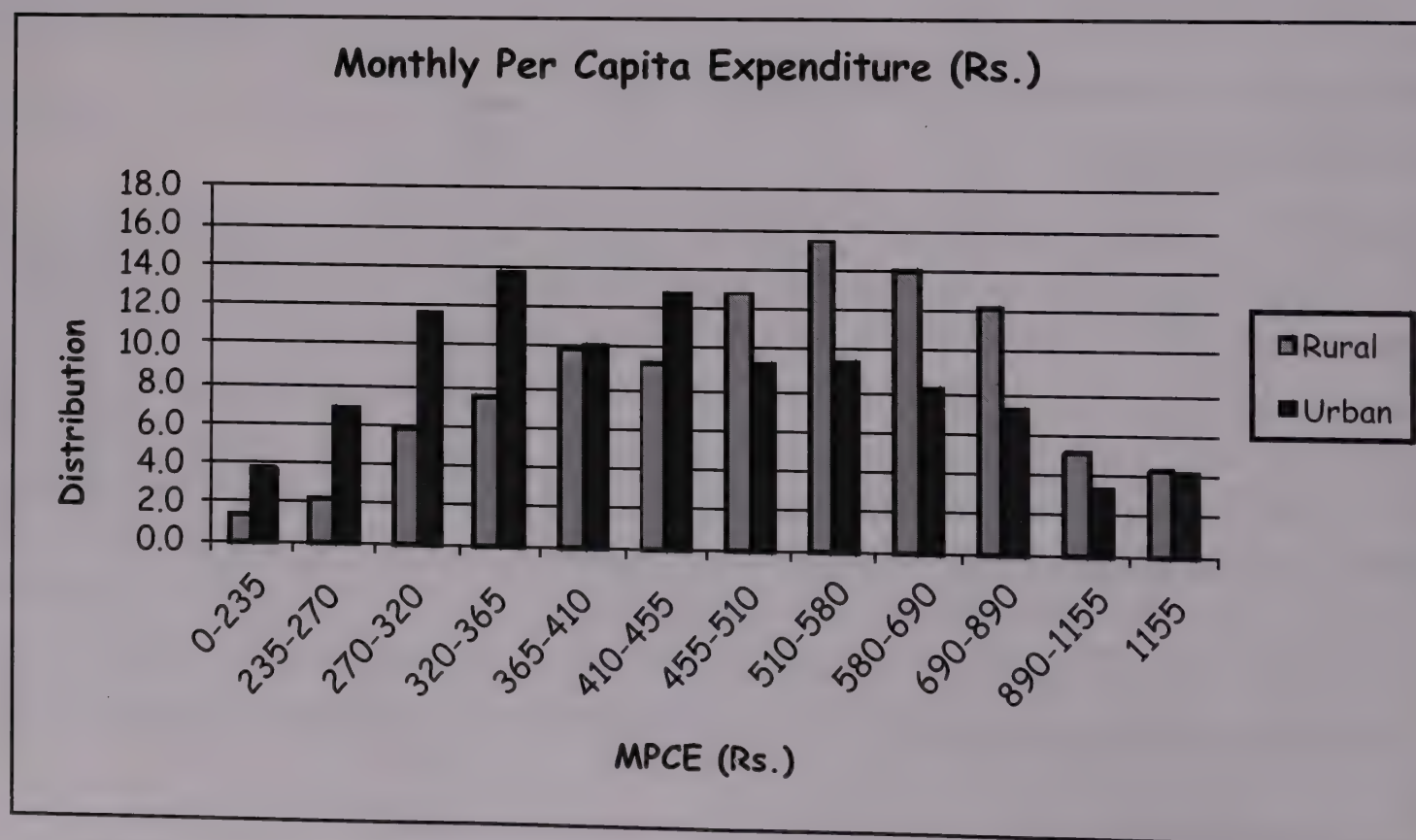
Area	Expenditure (Rs.)												All
	0-235	235-270	270-320	320-365	365-410	410-455	455-510	510-580	580-690	690-890	890-1155	1155+	
Rajasthan													
Rural	1.3	2.1	5.8	7.4	9.9	9.3	12.9	15.5	14.0	12.2	5.2	4.3	100
Urban	3.7	6.7	11.7	13.8	10.1	12.7	9.2	9.4	8.2	7.1	3.3	4.1	100
India													
Rural	4.8	5.1	9.9	10.5	10.2	9.4	9.9	10.2	10.4	9.8	5.0	5.0	100
Urban	5.0	5.1	9.8	10.3	9.7	9.9	10.3	9.7	10.2	9.9	5.1	4.9	100

Source : NSSO 61st Round 2004-05

Further, to get glimpses of poverty and economic well-being, NSSO survey on level and pattern of consumer expenditure for the year 2004-2005 reports that 17 percent of villagers were living below the MPCE level of Rs.365 or Rs.12 per day and 3 percent are living below the MPCE of Rs. 270 or Rs.9 per day. In urban areas, 36 percent of urban dwellers live below the MPCE of Rs. 580 or Rs.19 per day and 10 percent live below the MPCE of Rs. 395 or Rs.13 per day.

Table 3.3 also shows that almost 95.7 percent villagers and 95.9 percent urban dwellers live on Rs.38.50 per day that is less than a dollar a day. The average MPCE in rural areas is Rs.590.83 with a Lorenz ratio of 0.248 while urban MPCE is Rs.964.02 with Lorenz ratio of 0.367.

Figure 3.1: Monthly Per Capita Expenditure in Rs



3.4 Food Adequacy

What is the food adequacy situation in Rajasthan? Data on food inadequacy prevailing in Rajasthan in 1993-94 and 1999-2000 as per National Sample Survey's provide some information. In psychology, one important conclusion is that 'we perceive what we want, not what it is'. So perception varies from individual to individual. A person not able to consume food of his/her taste may report that he/she did not get enough food everyday throughout the year. On the other hand, a person who normally consumes only dal-roti may perceive that he/she gets enough food every day. Table 3.4 summarises the feelings of the people in Rajasthan whether they are getting adequate food or not during the year. In rural Rajasthan, the percentage of households where all the members got enough food everyday throughout the year improved from 98.5 percent to 99.7 percent during the period from 1993 to 2000. The percentage of households with at least one of the household members not getting enough food everyday in some months of the year declined from 0.6 percent in 1993 to 0.1 percent in 2000. The percentage of households with at least one of the household members not getting enough food everyday in all the months of the year increased marginally by 0.1 percent over the period 1993 to 2000.

Table 3.4: Distribution of Members of the Households Getting Two Square Meals a Day

Area	Year Round	Only Some Months	No	Not	All
Rural 1993-94					
Rajasthan	98.5	0.6	-	0.8	100
India	94.5	4.2	0.9	0.4	100
Rural 1999-00					
Rajasthan	99.7	0.1	0.1	-	100
India	96.2	2.6	0.7	0.5	100
Urban 1993-94					
Rajasthan	99.2	0.2	-	0.7	100
India	98.1	1.1	0.5	0.3	100
Urban 1999-00					
Rajasthan	99.8	0.2	-	-	100
India	98.6	0.6	0.3	0.4	100

Source: NSSO, Reported Adequacy of Food Intake in India- 1993-94 and 1999-2000.

In urban Rajasthan, the percentage of households where all the members got enough food everyday throughout the year marginally improved from 99.2 percent to 99.8 percent during the period from 1993 to 2000. The percentage of households with at least one of the household members not getting enough food everyday some months of the year remained constant at 0.2 percent in 1993 and in 2000. Overall, the perception of the people in Rajasthan in 1999-2000 was that they were generally getting enough food everyday throughout the year, in both rural and urban areas.

3.5 Nutrition

Every five years National Family Health Surveys (NFHSs) are conducted in India. The NFHS-2 reported that in the year 1998-99, 36.1 percent of ever-married women were with Body Mass Index (BMI) of below normal and this percentage did go down to 33.6 percent in 2005-2006 (NFHS-3), which is still high. The rural situation (36.5%) is worse than urban situation (25.6%). Among ever-married women, as per the NFHS- 3, education plays an important role in improving the nutritional status. For instance, 35.5 percent of women having BMI of below normal had no education as against 18.9 percent women with 10 years complete or above education. The impact of education appears to impact only after 8-9 years of schooling. In case of men, as per the NFHS- 3, 33.8 percent ever-married men had BMI of below normal; rural 38.6 percent and urban 22.8 percent. Education is important here too. For instance, 39.1 percent of ever-married men having BMI of below normal had no education as against 18.9 percent men with 10 years complete or above education. The impact of education here too is visible only after 8-9 years of schooling. If we consider over-weight or obesity as another indicator reflecting on nutritional status, as per the NFHS-2, only 7.1 percent ever-married women were over-weight or obese. The deterioration is observed in this indicator as per the NFHS-3. For instance, in 2005-2006, 10.2 percent women were over-weight or obese. Obesity is mainly an urban problem- 22.1 percent urban compared to only 5.8 percent rural area. In case of ever-married men, 8.4 percent were over-weight or obese. The regional proportions were 19.3 percent urban and 3.7 percent rural. Surprisingly, higher the education higher is the chance of obesity in both rural and urban areas and more so among women- 25.4 percent women and 18.7 percent men with 10 years complete or above education are obese compared to 7.4 and 3.0 percent with no education.

4. Demography of Sample Households

4.1 Head of Households

The sample comprise of 50.29 percent marginal farmers in more exposed region compared to 57.14 percent in the less exposed region. These farmers possess land below one hectare. The rest are small farmers who possess land between 1-2 hectares. The sample farmer households are primarily male-headed in both the regions and around 3 percent are female headed farmer households. With regard to type of residency of the head of the household, he/she is mostly full-time resident in both the regions, though marginally higher proportion of head of the household in less exposed region in temporary status as they are looking out for work.

4.2 Marital Status

94 percent head of the households are married in more exposed region compared to slightly lower proportion (93%) married in less exposed region (table 4.1). Less exposed region also has higher percentage of heads that are widower (6% vs. 4.86%) while the obverse is the case of unmarried head of households (1.1% vs. 0.86%).

Table 4.1: Distribution of Head of the Household by Marital Status

Marital Status	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Unmarried	04	1.14	03	0.86	07	1.00
Married	329	94.00	326	93.14	655	93.57
Widower	17	4.86	21	6.00	38	5.43
Total	350	100.00	350	100.00	700	100.00

4.3 Education

In more exposed region, 47 percent of head of households are illiterate compared to 56 percent in less exposed region (table 4.2). Data shows that heads are below primary level education, the proportion is higher in case of heads in less exposed region. In all other classes of education, there is a higher proportion of heads in more exposed region.

Table 4.2: Distributions of Head of the Household by Education

Education	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Below Primary	36	10.29	45	12.86	81	11.57
Primary to Middle	91	26.00	77	22.00	168	24.00
Secondary	31	8.86	19	5.43	50	7.14
Secondaryplus	27	7.71	13	3.71	40	5.71
Illiterate	165	47.14	196	56.00	361	51.57
Total	350	100.00	350	100.00	700	100.00

4.4 Employment and Income

The nature of employment status of head of the family is marginally different in the two regions. Table 4.3 shows that majority (around 66%) of heads are temporarily employed in both the regions, though a slightly higher proportion of heads in more exposed region are regularly employed. There is no head in more exposed region that is casual labourer and unemployed. 3.1 percent of heads in less exposed region are self-employed compared to 2.6 percent. Women heads are reported to be housewives in both the regions. Around five percent are old-aged.

Table 4.3: Distribution of Head of the Household by Occupational Status

Occupational Status	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Regularly Employed	89	25.43	79	22.57	168	24.00
Temporarily Employed	234	66.86	231	66.00	465	66.43
Self employed	09	2.57	11	3.14	20	2.86
Casual Labour	-	-	05	1.43	05	0.71
Unemployed	-	-	03	0.86	03	0.43
Housewife	02	0.57	02	0.57	04	0.57
Others (oldage)	16	4.57	19	5.43	35	5.00
Total	350	100.00	350	100.00	700	100.00

Do the head of the farmer's household contribute to income? It is found that 95.14 percent in more exposed region do so compared to 93.14 percent in less exposed region.

5. House Food Security

5.1 Source of Food

How did the household obtain most of its food? Both own production and food purchased was the source of food security in case of 89.14 percent households in 2007 in more exposed region compared to 66 percent in case of less exposed region (table 5.1). It is quite an eye opener that 9.71 percent of households in 2007 in more exposed region purchased food as against 32.29 percent in less exposed region. Food donations are not of any relevance in both the regions. One does find that in 1995, both own production and food purchased was the source of food security in case of 92.29 percent households in more exposed region compared to 86 percent in case of less exposed region. Own production did contribute to food security in both the regions, though slightly higher proportion was observed in more exposed region.

Table 5.1: Distribution of Households by Source of Food Received in 2007 and 1995

Item (2007)	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Purchased Food	34	9.71	113	32.29	147	21.00
Both own & purchased	312	89.14	231	66.00	543	77.57
Both own and donations	1	0.29	-	0.00	1	0.14
Both own, purchased & donated	3	0.86	6	1.71	9	1.29
Total	350	100.00	350	100.00	700	100.00
1995						
Own Production	7	2.00	6	1.71	13	1.86
Purchased Food	13	3.71	36	10.29	49	7.00
Both own & purchased	323	92.29	301	86.00	624	89.14
Both own and donations	3	0.86	-	0.00	3	0.43
Both own, purchased & donated	4	1.14	7	2.00	11	1.57
Total	350	100.00	350	100.00	700	100.00

How was the household's food supply during the year? In other words, did the household have usually enough food to eat in 2007? Table 5.2 show that situation was better in 1995 compared to 2007 and it has been better in more exposed region compared to less exposed region in both the years. This means that majority of households always had enough food to eat. However, in 2007 compared to 1995, a larger proportion also reported that the household did not have enough food now and then and half the time in both the region, though the percentage reporting this is higher in less exposed region.

Table 5.2 Distribution of Enough Food in 2007 and 1995

Item (2007)	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Yes, always	298	85.14	255	72.86	553	79.00
Most of the time	8	2.29	15	4.29	23	3.29
Half of the time	22	6.29	47	13.43	69	9.86
Now and then	22	6.29	22	6.29	44	6.29
Never	-	-	11	3.14	11	1.57
Total	350	100.00	350	100.00	700	100.00
1995						
Yes, always	323	92.29	290	82.86	613	87.57
Most of the time	8	2.29	14	4.00	22	3.14
Half of the time	15	4.29	34	9.71	49	7.00
Now and then	4	1.14	6	1.71	10	1.43
Never	-	-	6	1.71	6	0.86
Total	350	100.00	350	100.00	700	100.00

Further, there were certain months in which households did not have enough food to eat. Family's food needs were not met in lean periods. This was more so in less exposed region.

5.3 Access to Food during Scarcity

Which food items were more difficult to access during the period of scarcity? In more exposed region, it was wheat in 14.86 percent cases followed by bajra, pulses and wheat (1.43%) and bajra alone in 0.57 percent households (table 5.3). However, in less exposed region, 24.86 percent households reported it was wheat that was difficult to access followed by bajra, pulses and wheat (4%) and bajra alone in 2.57 percent households and vegetables (0.29%) households.

Table 5.3: Distribution of households by Difficulty to Food Access

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Bajra	2	0.57	9	2.57	11	1.57
Bajra Pulses, Wheat	5	1.43	14	4.00	19	2.71
Wheat	52	14.86	87	24.86	139	19.86
Vegetables	-	0.00	1	0.29	1	0.14
Not Applicable	291	83.14	232	66.29	523	74.71
No Response	-	0.00	7	2.01	7	1.00
Total	350	100.00	350	100.00	700	100.00

5.4 Means of Managing Food Shortage

Even if food shortages are observed by few households, the question is how did they cope with this food shortage or who supported the household during this period. Table 5.4 reveals that 20.57 percent households borrowed and purchased food from public distribution shops in less exposed region compared to 10.86 percent such households in more exposed region. About 9 percent sold their livestock to tide over the food shortages in less exposed region. This percentage was 4.86 percent in more exposed region.

Table 5.4: Distribution of Households by Means of Managing Food Shortage

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Sold livestock	17	4.86	32	9.14	49	7.00
Received relief food	1	0.29	4	1.14	5	0.71
Received food from relatives	-	-	1	0.29	1	0.14
Reduced meals	3	0.86	6	1.71	9	1.29
Others: Borrowed, PDS	38	10.86	72	20.57	110	15.71
Not Applicable	291	83.14	232	66.29	523	74.71
No Response		0.00	3	0.86	3	0.43
Total	350	100.00	350	100.00	700	100.00

5.5 Unusual Food Consumption

On the question as to what foods (or unusual substances) did the household members consume more especially (or only) during the period of hunger/scarcity, it is found that 29.14 percent households reported that they never shifted to such foods while only one household tried Pumar (grass type wild food) in less exposed region (table 5.5). 3.43 percent (12 households) also consumed old wheat that was not fit for consumption. This was 1.14 percent (4 households) in more exposed region. 15.43 percent households reported that they never shifted to such foods while only one household tried Pumar (grass type wild food) in more exposed region.

Table 5.5: Distribution of Households by Unusual Food Item Consumption by Family

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Never	54	15.43	102	29.14	156	22.29
Pumar (grass type)	1	0.29	1	0.29	2	0.29
Old Wheat	4	1.14	12	3.43	16	2.29
Not Applicable	291	83.14	232	66.29	523	74.71
No Response	-	0.00	3	0.86	3	0.43
Total	350	100.00	350	100.00	700	100.00

5.6 Response of Women

The attempt to find out how women respond to household food insecurity especially during last 4 weeks (prior to survey and similarly prior to same month in 1995) reveal interesting responses.

Tables 5.6 and 5.7 presents a comparative position of women and men's response regarding household food situation. Women's response reveals that in more exposed region strong decrease was observed in 19.14 percent households while this percentage was much higher (45.14% households) in less exposed region. Another 30 percent households in more exposed region observed some decrease and 34 percent did so in less exposed region. This means that almost 80 percent of households in less exposed region observed deterioration in food situation between 1995 and 2007 as per the women of the family. On the other hand, half the household in more exposed region observed a fall in food situation in 2007 over 1995.

Table 5.6: Distribution of Households by Women Response to Food Situation

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Strong Decrease	67	19.14	158	45.14	225	32.14
Some Decrease	105	30.00	119	34.00	224	32.00
No Change	54	15.43	40	11.43	94	13.43
Some Increase	90	25.71	30	8.57	120	17.14
Strong increase	14	4.00	2	0.57	16	2.29
Not Applicable	4	1.14			4	0.57
No Response	16	4.57	1	0.29	17	2.43
Total	350	100.00	350	100.00	700	100.00

About a quarter (26%) of the families observed increase in food situation during the period 1995-2007 in more exposed region with 4 percent families noticing substantial increase. In less exposed region, the corresponding proportions are 8.57 percent and 0.57 percent families respectively. This means that women in less exposed region to WTO have observed greater decline in food situation in 1995 over 2007 and women in more exposed region to WTO noticed increase in food situation.

5.7 Response of Men

Men's response reveals that in more exposed region strong decrease was observed in 19.43 percent households while this percentage was much higher (43.14% households) in less exposed region (Table 5.7). Another 29.71 percent households in more exposed region observed some decrease and 36.29 percent did so in less exposed region. This means that almost 80 percent of households in less exposed region observed deterioration in food situation between 1995 and 2007 as per men of the family. On the other hand, half the household in more exposed region observed a fall in food situation in 2007 over 1995.

Table 5.7: Distribution of Households by Men's Response to Food Situation

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Strong Decrease	68	19.43	151	43.14	219	31.29
Some Decrease	104	29.71	127	36.29	231	33.00
No Change	56	16.00	38	10.86	94	13.43
Some Increase	96	27.43	29	8.29	125	17.86
Strong increase	18	5.14	3	0.86	21	3.00
Not Applicable	1	0.29		0.00	1	0.14
No Response	7	2.00	3	0.86	9	1.29
Total	350	100.00	350	100.00	700	100.00

A little more than a quarter (27.43%) of the families observed increase in food situation during the period 1995-2007 in more exposed region with 5.14 percent families noticing strong increase. In less exposed region, the corresponding proportions are 8.29 percent and 0.86 percent families respectively. This means that men in less exposed region to WTO have observed greater declining in food situation in 1995 over 2007 and women in more exposed region to WTO noticed increase in food situation

5.8 Factors Determining Food Security

What are then the factors influencing the above trends in household food security since 1995? Both women and men responded to this question. The first most important factor that determines household food security trends since 1995 as reported by woman in more exposed region was subsistence farming; 35.71 percent women reporting it followed by access and availability to seeds (18.29%) and employment level (15.14%) (table 5.8). In case of less exposed region, woman in 35.43 percent households reported the first factor as subsistence farming followed by employment level (19.43%), access to and availability to seeds (14.86%) and commercial food production (shifting) 7.71 percent.

The second factor determining the trend in food security since 1995 in more exposed region was access to and availability of fertilizers (15.43%), income generation activities (15.14%), nutritional value of food intake (13.14%), income level (12.57%) and subsistence farming (5.71%) in more exposed region (table 5.9). In less exposed region, the second factor reported was income level (16.29%), access to and availability of fertilizers (12.29%), employment level (11.71%), subsistence farming (10.57%), access and availability of seeds (8.86%). In the less exposed, women also reported nutritional value of food intake (6.57%), real price level of basic food basket (6.29%) and commercial food production (shifting)-2.29 percent.

Table 5.8: Distribution of Households by First Most Important Factor that Determine Household Food Security Trends since 1995- Women Response

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Subsistence arming (Normal Farming)	125	35.71	124	35.43	249	35.57
Commercial food production (shifting)	8	2.29	27	7.71	35	5.00
Access to and availability of Seeds	64	18.29	52	14.86	116	16.57
Access to and availability of fertilizers	10	2.86	10	2.86	20	2.86
Food imports from other states	2	0.57	1	0.29	3	0.43
Food imports from other countries	2	0.57	4	1.14	6	0.86
Employment level	53	15.14	68	19.43	121	17.29
Income generation activities	8	2.29	4	1.14	12	1.71
Income level	13	3.71	14	4.00	27	3.86
Real price level of basic food basket	7	2.00		0.00	7	1.00
Nutritional value of food intake	14	4.00	7	2.00	21	3.00
Public investment to improve value of intake	2	0.57		0.00	2	0.29
NOR	42	12.01	39	11.14	81	11.57
Total	350	100.00	350	100.00	700	100.00

The first most important factor that determines household food security trends since 1995 as reported by men in more exposed region was subsistence farming; 34.86 percent households followed by employment level (22.00%), access to and availability of seeds (11.71) (table 5.10). In case response of men in less exposed region, 34 percent households were affected by (the first factor) subsistence farming followed by employment level (17.43%), access to and availability to seeds (15.14%) and commercial food production (shifting)- 8.29 percent.

Table 5.9: Distribution of Households by Second Most Important Factor that Determine Household Food Security Trends since 1995- Women Response

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Subsistence farming (Normal Farming)	20	5.71	37	10.57	57	8.14
Commercial food production (shifting)	16	4.57	22	6.29	38	5.43
Access and availability of Seeds	26	7.43	31	8.86	57	8.14
Access and availability of fertilizers	54	15.43	43	12.29	97	13.86
Food imports from other states	1	0.29	2	0.57	3	0.43
Food imports from other countries	2	0.57		0.00	2	0.29
Employment level	28	8.00	41	11.71	69	9.86
Income generation activities	53	15.14	19	5.43	72	10.29
Income level	44	12.57	57	16.29	101	14.43
Real price level of basic food basket	10	2.86	22	6.29	32	4.57
Nutritional value of food intake	46	13.14	23	6.57	69	9.86
Public investment to improve nutritional value of intake	4	1.14	5	1.43	9	1.29
NOR	46	13.15	48	13.71	94	13.43
Total	350	100.00	350	100.00	700	100.00

The second factor determining the trend in food security since 1995 in more exposed region was income generation activities(16.29%), income level (12.86%), nutritional value of food intake (13.71%), access to and availability of fertilizers (11.71%), employment level (10.29%), access to and availability of seeds (8.86%) and subsistence farming (6.29%) in more exposed region (table-5.11). In less exposed region, the second factor reported was income level (14%), employment level (13.71%), access to and availability of fertilizers (11.43%), subsistence farming (11.14%) and access and availability of seeds (9.14%). In the less exposed, response of the men put nutritional value of food intake (6.86%), real price level of basic food basket (6.86%) and commercial food production (shifting)-6.00 percent as second most important factor determining the trend in household food security since 1995.

Table 5.10: Distribution of households by First Most Important Factor that Determine Household Food Security Trends since 1995- Men Response

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Subsistence farming (Normal Farming)	122	34.86	119	34.00	241	34.43
Commercial food production (shifting)	6	1.71	29	8.29	35	5.00
Access to and availability of Seeds	41	11.71	53	15.14	94	13.43
Access to and availability of fertilizers	13	3.71	8	2.29	21	3.00
Food imports from other states			1	0.29	1	0.14
Food imports from other countries	2	0.57	2	0.57	4	0.57
Employment level	77	22.00	61	17.43	138	19.71
Income generation activities	9	2.57	5	1.43	14	2.00
Income level	17	4.86	23	6.57	40	5.71
Real price level of food basket	8	2.29	1	0.29	9	1.29
Nutritional value of food intake	19	5.43	8	2.29	27	3.86
Public investment to improve nutritional value of intake	2	0.57		0.00	2	0.29
Others	34	9.72	40	11.43	74	10.58
Total	350	100.00	350	100.00	700	100.00

Table 5.11: Distribution of households by Second Most Important Factor that Determine Household Food Security Trends since 1995- Men Response

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Subsistence farming (Normal Farming)	22	6.29	39	11.14	61	8.71
Commercial food production (shifting)	13	3.71	21	6.00	34	4.86
Access to and availability of Seeds	31	8.86	32	9.14	63	9.00
Access to and availability of fertilizers	41	11.71	40	11.43	81	11.57
Food imports from other states	2	0.57	1	0.29	3	0.43
Food imports from other countries	3	0.86		0.00	3	0.43
Employment level	36	10.29	48	13.71	84	12.00
Income generation activities	57	16.29	18	5.14	75	10.71
Income level	45	12.86	49	14.00	94	13.43
Real price level of food basket	10	2.86	24	6.86	34	4.86
Nutritional value of food intake	48	13.71	24	6.86	72	10.29
Public investment	4	1.14	5	1.43	9	1.29
NOR	38	10.87	49	14.00	87	12.43
Total	350	100.00	350	100.00	700	100.00

6. Economic Activities

6.1 Farming Activities

The engagement of head of the household in agriculture and other economic activities was also solicited. Table 6.1 shows that one-tenth of heads of the household were not engaged in agriculture in the year 2007 in more exposed region while this is 16.29 percent in less exposed region. In more exposed region, heads with limited engagement (1-3 days per month) was 25.14 percent; heads with modest engagement (4-7 days a month) is 18.57 percent and regular engagement (8 days a month) is 46.29 percent. In less exposed region, heads with limited engagement (1-3 days per month) was 20.57 percent; heads with modest engagement (4-7 days a month) is 20 percent and regular engagement (8 days a month) is 43.14 percent.

Table 6.1: Distribution of Heads of the Household by Engagement in Farming per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Engaged in Farming in 2007						
No	35	10.00	57	16.29	92	13.14
Limited engagement (1-3 days)	88	25.14	72	20.57	160	22.86
Modest engagement (4-7 days)	65	18.57	70	20.00	135	19.29
Regular engagement (8+ days)	162	46.29	151	43.14	313	44.71
Total	350	100.00	350	100.00	700	100.00
Engaged in Farming in 1995						
No	22	6.29	25	7.14	47	6.71
Limited engagement (1-3 days)	66	18.86	28	8.00	94	13.43
Modest engagement (4-7 days)	54	15.43	36	10.29	90	12.86
Regular engagement (8+ days)	208	59.43	261	74.57	469	67.00
Total	350	100.00	350	100.00	700	100.00

What was the situation in 1995? Table 6.1 shows that 6.29 percent of heads of the household were not engaged agriculture in 1995 in more exposed region while this was 7.14 percent in less exposed region. In more exposed region, heads with limited engagement (1-3 days per month) is 18.86 percent; heads with modest engagement (4-7 days a month) was 15.43 percent and regular engagement (8 days a month) is 59.43 percent. In less exposed region, heads with limited engagement (1-3 days per month) is 8.00 percent; heads with modest engagement (4-7 days a month) was 10.29 percent and regular engagement (8 days a month) is 74.57 percent.

Thus, in 2007 over 1995, engagement of heads of the household in farming declines across engagement periods.

6.2 Non-Farming Activities

If engagement in farming has gone down, what is the position in engagement in non-farm activities of the heads of households? Table-6.2 reveals that 65.43 percent heads were engaged in non-farm economic activities in 2007 in more exposed region compared to 50.86 percent in 1995. In case of less exposed region, 76.57 percent heads were engaged in non-farm economic activities in 2007 in more exposed region compared to 52.00 percent in 1995.

Table 6.2: Distribution of Engagement in Non-farm Economic Activities

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
In the year 2007						
No	121	34.57	82	23.43	203	29.00
Yes	229	65.43	268	76.57	497	71.00
Total	350	100.00	350	100.00	700	100.00
In the Year 1995						
No	172	49.14	168	48.00	340	48.57
Yes	178	50.86	182	52.00	360	51.43
Total	350	100.00	350	100.00	700	100.00

6.3 Regularity of Engagement

What is the regularity of engagement in the past 3 years of the heads in economic activities? Table 6.3 reveals that 34.57 percent heads were not engaged in any other economic activity in the past three years compared to 48.86 percent in 1995 in more exposed region. In less exposed region, 23.43 percent heads were not engaged in any other economic activity in the past three years compared to 48.00 percent in 1995. The proportion of heads engaged on irregular basis in any other economic activity is 56.00 percent heads in more exposed region compared to 44.86 percent in 1995. In less exposed region, 65.43 percent heads were not engaged on irregular basis in any other economic activity in any other economic activity compared to 44.00 percent in 1995. In less exposed region, 0.57 percent heads were engaged on irregular basis in many other economic activities in 2007 compared to 1.43 percent in 1995.

Table 6.3: Distribution of Heads by Regularity in Engagement in Last 3 Years

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
In the year 2007						
Not engaged	121	34.57	82	23.43	203	29.00
Irregular basis in one other economic activity	196	56.00	229	65.43	425	60.71
Irregular basis in more other economic activities	2	0.57	2	0.57	4	0.57
Regular basis in one other economic activity	31	8.86	37	10.57	68	9.71
Total	350	100.00	350	100.00	700	100.00
In the year 1995						
Not engaged	171	48.86	168	48.00	339	48.43
Irregular basis in one other economic activity	157	44.86	154	44.00	311	44.43
Irregular basis in more other economic activities	1	0.29	5	1.43	6	0.86
Regular basis in one other economic activity	21	6.00	23	6.57	44	6.29
Total	350	100.00	350	100.00	700	100.00

The proportion of heads engaged on regular basis in any other economic activity is 8.86 percent heads in more exposed region in 2007 compared to 6.00 percent in 1995. In less exposed region, 10.57 percent heads were engaged on regular basis in any other economic activity in 2007 compared to 6.57 percent in 1995.

6.4 Type of Economic Activity

Table 6.4 shows that the head of the household in the year 2007 were involved in economic activities other than farming. In more exposed region, 34 percent heads were not involved in any other economic activity as compared to 48.86 percent in 1995. In the less exposed region, 23.14 percent heads were not involved in any other economic activity as compared to 47.71 percent in 1995. The other important economic activity in which the heads were involved in casual labor in 2007 and this proportion rose from 43.14 percent in 1995 in more exposed region. In the less exposed region, corresponding proportion increased from 44.86 in 1995 to 66.29 percent in 2007. The other activity is running of a petty shop in the village in 2007 in more exposed region and carpentry in less exposed region. In both the cases the percent improved. There are other economic activities like masonry, private job, government job, driver, tailoring; pottery, priesthood, painting work and sweet making the heads were engaged in besides the agriculture. This means that

compared to 1995 heads had to move out from agriculture and raise family income and it happened more in less exposed region.

Table 6.4: Distribution of Heads by Type of Economic Activities

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
In the year 2007						
No work	119	34.00	81	23.14	200	28.57
Labour	191	54.57	232	66.29	423	60.43
Private Job	2	0.57	3	0.86	5	0.71
Private School teacher			1	0.29	1	0.14
Carpenter			7	2.00	7	1.00
Government Job	9	2.57	3	0.86	12	1.71
Petty Shop	19	5.43	5	1.43	24	3.43
Driver	4	1.14	5	1.43	9	1.29
Tailoring	3	0.86	3	0.86	6	0.86
Potter		0.00	2	0.57	2	0.29
Jewellery Work	1	0.29			1	0.14
Sweet maker		0.00	2	0.57	2	0.29
Priest		0.00	3	0.86	3	0.43
Painting work	2	0.57	3	0.86	5	0.71
Total	350	100.00	350	100.00	700	100.00
In the year 1995						
No work	171	48.86	167	47.71	338	48.29
Labour	151	43.14	157	44.86	308	44.00
Mason		0.00	1	0.29	1	0.14
Private job	1	0.29	2	0.57	3	0.43
Carpenter		0.00	6	1.71	6	0.86
Government job	6	1.71	2	0.57	8	1.14
Petty shop	11	3.14	3	0.86	14	2.00
Driver	4	1.14	2	0.57	6	0.86
Tailoring	3	0.86	2	0.57	5	0.71
Potter		0.00	2	0.57	2	0.29
Sweet maker	1	0.29	2	0.57	3	0.43
Priest		0.00	4	1.14	4	0.57
Painting work	2	0.57		0.00	2	0.29
Total	350	100.00	350	100.00	700	100.00

6.5 Trends in Subsistence Farming

Head of households reflected on number of conditions or household activities that may be important for the food and nutrition security in the area since 1995. Table 6.5 shows that 25.14 percent heads reported strong decrease in subsistence farming in more exposed region compared to 67.71 percent in less exposed region. Another 32.86 percent heads reported some decline in more exposed region and 20.86 percent in exposed region. We find that very few heads reported no change, but a higher proportion reported so in more exposed region compared to less exposed region. On the other hand, 30 percent heads in more exposed region reported some increase compared to mere 7.14 percent in less exposed region. The same was the case with strong increase in both the regions. Thus, both the regions observed decline in subsistence farming and reflecting it on food and nutrition security. Are these trends in subsistence farming important for food and nutrition situation of the household, 22.29 percent heads in more exposed region said they were not important, but 31.14 percent heads in less exposed region reported so. For 32.86 percent heads of households reported that these trends were little important and 44.86 percent reported they were very important. In the less exposed region, the corresponding proportions were 16 and 52.86 percent.

Table 6.5: Distribution of Heads by Trends in Subsistence farming since 1995

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Strong decrease	88	25.14	237	67.71	325	46.43
Some decrease	115	32.86	73	20.86	188	26.86
No change	28	8.00	14	4.00	42	6.00
Some increase	105	30.00	25	7.14	130	18.57
Strong increase	14	4.00	1	0.29	15	2.14
Total	350	100.00	350	100.00	700	100.00
Is it important for food and nutrition situation of the household						
Not important	78	22.29	109	31.14	187	26.71
Some what important	115	32.86	56	16.00	171	24.43
Very important	157	44.86	185	52.86	342	48.86
Total	350	100.00	350	100.00	700	100.00

6.6 Trends in Commercial Food Production

Table 6.6 shows that 14.00 percent heads reported strong decrease in commercial food production (shifting) in more exposed region compared to 33.71 percent in less exposed region. Another 26.29 percent heads reported some decline in more exposed region and 30.29 percent in exposed region. We found that 23.71 percent heads in more exposed region reported no change, but a lower proportion reported change in less exposed region. On the other hand, 31.43 percent heads in more exposed region reported some change compared to 14.29 percent in less exposed region. The same was case with strong increase in both the regions. Thus, reduction in commercial food production (shifting) had a greater impact on food and nutrition security in less exposed region as compared to more exposed region. How are these changes from the household food and nutrition security point of view? 39.43 percent heads in more exposed region and 35.43 percent heads in less exposed region reported that they are very important, whereas 24.57 percent heads reported that they are not important in more exposed region and 33.43 percent heads in less exposed region. A slightly higher proportion of heads of household reported that trends in commercial food production (shifting) are some what important in more exposed region as compared to less exposed region.

Table 6.6: Distribution of Heads by Trends in Commercial Food Production since 1995

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Strong decrease	49	14.00	118	33.71	167	23.86
Some decrease	92	26.29	106	30.29	198	28.29
No change	83	23.71	49	14.00	132	18.86
Some increase	110	31.43	50	14.29	160	22.86
Strong increase	9	2.57	6	1.71	15	2.14
NOR	7	2.00	21	6.00	28	4.00
Total	350	100.00	350	100.00	700	100.00
Is it important for food and nutrition situation of the household						
Not important	86	24.57	117	33.43	203	29.00
Some what important	126	36.00	109	31.14	235	33.57
Very important	138	39.43	124	35.43	262	37.43
Total	350	100.00	350	100.00	700	100.00

6.7 Trends in Access and Availability of Seeds

Table 6.7 shows that 11.14 percent heads reported strong decrease in access to and availability of seed in more exposed region compared to 24 percent in less exposed region. Another 28.29 percent heads reported some decline in more exposed region and 32.86 percent in less exposed region. We found that 8.00 percent heads in more exposed region reported no change, but a higher proportion reported change in less exposed region. On the other hand, 46.86 percent heads in more exposed region reported some change compared to 24.86 percent in less exposed region. About 6 percent heads reported a strong increase in more exposed region as against only 1.43 percent in less exposed region. Thus, one may observe increase in access to and availability of seeds influencing greater impact on food and nutrition security in more exposed region compared to less exposed region. How important is trend in access to and availability of seeds since 1995 to household food and nutrition security, the response reveals that more than half the heads felt it was very important in both the regions though a slightly higher percentage said so in less exposed region. The response shows that changes that have taken place in access and availability of seeds to household food and nutrition security are significant.

Table 6.7: Distribution of Heads by Trends in Access to and Availability of Seeds since 1995

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Strong decrease	39	11.14	84	24.00	123	17.57
Some decrease	99	28.29	115	32.86	214	30.57
No change	28	8.00	59	16.86	87	12.43
Some increase	164	46.86	87	24.86	251	35.86
Strong increase	20	5.71	5	1.43	25	3.57
Total	350	100.00	350	100.00	700	100.00
Is it important for food and nutrition situation of the household						
Not important	66	18.86	62	17.71	128	18.29
Some what important	91	26.00	87	24.86	178	25.43
Very important	193	55.14	201	57.43	394	56.29
Total	350	100.00	350	100.00	700	100.00

6.8 Trends in Access and Availability of Fertilizers

Table- 6.8 shows that 11.71 percent heads reported strong decrease in access to and availability of fertilizers in more exposed region compared to 24.29 percent in less exposed region. Another 29.14 percent heads reported some decline in more exposed region and 30.86 percent in less exposed region. We found that 9.71 percent heads in more exposed region reported no change, but a higher proportion reported so in less exposed region. On the other hand, 42 percent heads in more exposed region reported some region compared to 28.29 percent in less exposed region. About 7.43 percent heads reported a strong increase in more exposed region as against merely 1.71 percent in less exposed region. Thus, one may observe decrease in access to and availability of fertilizers influencing greater impact on food and nutrition security in less exposed region as compared to more exposed region. The trends in access and availability of fertilizers to household food and nutrition security is very important as per 54.57 percent heads in more exposed region and 55.43 percent heads in less exposed region. It was not important to 16 percent heads in both of the regions. As fertilizers help raise productivity, their non-availability may adversely affect food and nutrition security.

Table 6.8 Distribution of Heads by Trends in Access and Availability of Fertilizers since 1995

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Strong decrease	41	11.71	85	24.29	126	18.00
Some decrease	102	29.14	108	30.86	210	30.00
No change	34	9.71	50	14.29	84	12.00
Some increase	147	42.00	99	28.29	246	35.14
Strong increase	26	7.43	6	1.71	32	4.57
NOR			2	0.57	2	0.29
Total	350	100.00	350	100.00	700	100.00
Is it important for food and nutrition situation of the household						
Not important	59	16.86	56	16.00	115	16.43
Some what important	100	28.57	100	28.57	200	28.57
Very important	191	54.57	194	55.43	385	55.00
Total	350	100.00	350	100.00	700	100.00

6.9 Trends in Food Imports (States)

Table 6.9 shows that 5.43 percent heads reported strong decrease in food imports from other states in more exposed region compared to 9.14 percent in less exposed region had influence on food and nutrition security. Another 13.43 percent heads reported some decline in more exposed region and 10.57 percent in less exposed region. We found that 44.29 percent heads in more exposed region reported no change, but a lower proportion reported so in less exposed region. On the other hand, 30.86 percent heads in more exposed region reported some increase compared to 40.86 percent in less exposed region. About 2.86 percent heads reported a strong increase in more exposed region as against 3.71 percent in less exposed region. Thus, one may observe increase in imports of food from other states influencing greater impact on food and nutrition security in less exposed region compared to more exposed region.

Table 6.9: Distribution of Heads by Trends in Food Imports, States since 1995

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Strong decrease	19	5.43	32	9.14	51	7.29
Some decrease	47	13.43	37	10.57	84	12.00
No change	155	44.29	96	27.43	251	35.86
Some increase	108	30.86	143	40.86	251	35.86
Strong increase	10	2.86	13	3.71	23	3.29
NOR	11	3.14	29	8.29	40	5.71
Total	350	100.00	350	100.00	700	100.00
Is it important for food and nutrition situation of the household						
Not important	82	23.43	121	34.57	203	29.00
Some what important	158	45.14	86	24.57	244	34.86
Very important	110	31.43	143	40.86	253	36.14
Total	350	100.00	350	100.00	700	100.00

Does trend in imports of food items from other states affect food and nutrition security? The response is yes and it is very important in case of 31.43 percent heads in more exposed region and 40.86 percent in case of less exposed region. Another 45.14 percent heads reported that it is some what important compared to 24.57 in less exposed region. It is not important for 23.43 percent heads in more exposed region and 34.57 percent heads in less exposed region. If the food is imported from other states, its impact on household food and nutrition security is visible only if the household purchases the imported food item.

6.10 Trends in Food Imports (Country)

When the issue of food imports from other countries is raised, majority of the heads reported no change on food and nutrition security. It is expected as India hardly imports food grains. Those heads reporting strong decrease in food and nutrition security were 8 percent in more exposed region compared to 6.86 percent in less exposed region, while 10.57 percent reported some decrease in more exposed region as against 10.29 percent in less exposed region (table 6.10).

Table 6.10: Distribution of Heads by Trends in Food Imports, Countries since 1995

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Strong decrease	28	8.00	24	6.86	52	7.43
Some decrease	37	10.57	36	10.29	73	10.43
No change	212	60.57	176	50.29	388	55.43
Some increase	55	15.71	72	20.57	127	18.14
Strong increase	8	2.29	14	4.00	22	3.14
NOR	10	2.86	28	8.00	38	5.43
Total	350	100.00	350	100.00	700	100.00
Is it important for food and nutrition situation of the household						
Not important	141	40.29	194	55.43	335	47.86
Some what important	141	40.29	65	18.57	206	29.43
Very important	68	19.43	91	26.00	159	22.71
Total	350	100.00	350	100.00	700	100.00

However, one-fifth of heads in less exposed reported some increase in food and nutrition security because of food imports compared to 15.71 percent in more exposed region. How important are these trends from household food and nutrition security, 40.29 percent reported that it is not important in more exposed region compared to 55.43 percent in less exposed region. Another 40.29 percent heads felt that imports from abroad somewhat important to household food and nutrition security in more exposed region and this is 18.57 percent in less exposed region. A small percentage of heads, 19.43 percent in more exposed region and 26 percent in less exposed region felt that trend in international food imports is very important for their household food and nutrition security.

6.11 Trends in Employment Level

When the issue of employment of head of the household is raised, majority of the heads reported strong increase in employment level. Employment gives additional income to purchase food items that are produced at own farm and also flexibility to have nutritious food items in the consumption basket and this affects through enhanced income levels. Those heads reporting strong decrease in employment level were 7.71 percent in more exposed region compared to 16.89 percent in less exposed

region, while 14.29 percent reported some decrease in more exposed region as against 22 percent in less exposed region (table 6.11). However, 65.14 percent of heads in more exposed region reported some increase in employment level compared to 38.29 percent in less exposed region. How important are these trends in employment from household food and nutrition security angle? Only 6.86 percent reported that they were not important in more exposed region compared to 10 percent in less exposed region. Another 18.86 percent heads felt that changes in employment are somewhat important to household food and nutrition security in more exposed region and this is 21.71 percent in less exposed region. A high percentage of heads, 74.29 percent in more exposed region and 68.29 percent in less exposed region felt that these trends in employment are very important for their household food and nutrition security.

Table 6.11: Distribution of Heads by Trends in Employment level since 1995

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Strong decrease	27	7.71	57	16.29	84	12.00
Some decrease	50	14.29	77	22.00	127	18.14
No change	26	7.43	59	16.86	85	12.14
Some increase	228	65.14	134	38.29	362	51.71
Strong increase	16	4.57	22	6.29	38	5.43
NOR	3	0.86	1	0.29	4	0.57
Total	350	100.00	350	100.00	700	100.00
Is it important for food and nutrition situation of the household						
Not important	24	6.86	35	10.00	59	8.43
Some what important	66	18.86	76	21.71	142	20.29
Very important	260	74.29	239	68.29	499	71.29
Total	350	100.00	350	100.00	700	100.00

6.12 Trends in Income Generating Activities

When the issue of income generating activities of head of the household is raised, majority of the heads reported increase in income generating activities. Income generating activities give additional income to purchase food items that are produced at own farm and also flexibility to have nutritious food items in the consumption basket

and this affects through enhanced income levels. Those heads reporting strong decrease in income generating activities were 7.71 percent in more exposed region compared to 16.89 percent in less exposed region, while 14.29 percent reported some decrease in more exposed region as against 22 percent in less exposed region (table 6.12). However, 65.14 percent of heads in more exposed reported some increase in income generating activities compared to 38.29 percent in less exposed region. How important are these trends from household food and nutrition security, only 6.86 percent reported that they are not important in more exposed region compared to 10 percent in less exposed region. Another 18.86 percent heads felt that trends in income generating activities are somewhat important to household food and nutrition security in more exposed region and this percentage is 21.71 percent in less exposed region. A high percentage of heads, 74.29 percent in more exposed region and 68.29 percent in less exposed region felt that trend in income generating activities were very important for their household food and nutrition security.

Table 6.12: Distribution of Heads by Trends in Income Generating Activities since 1995

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Strong decrease	21	6.00	79	22.57	100	14.29
Some decrease	48	13.71	91	26.00	139	19.86
No change	31	8.86	51	14.57	82	11.71
Some increase	220	62.86	107	30.57	327	46.71
Strong increase	28	8.00	22	6.29	50	7.14
NOR	2	0.57			2	0.29
Total	350	100.00	350	100.00	700	100.00
Is it important for food and nutrition situation of the household						
Not important	20	5.71	49	14.00	69	9.86
Some what important	62	17.71	72	20.57	134	19.14
Very important	268	76.57	229	65.43	497	71.00
Total	350	100.00	350	100.00	700	100.00

6.13 Trends in Income level

When the issue of income levels of head of the household is raised, majority of the heads reported some increase in income levels in more exposed region. If incomes go up consumption pattern changes and so could the nutrition intake through changes in consumption basket. Those heads reporting strong decrease in income levels were 4 percent in more exposed region compared to 21.71 percent in less exposed region, while 12.57 percent did report some decrease in more exposed

region as against 23.43 percent in less exposed region (table 6.13). However, 62.57 percent of heads in more exposed region reported some increase in income levels compared to 30.57 percent in less exposed region. How important are these trends from household food and nutrition security point of view, only 5.14 percent reported that they were not important in more exposed region compared to 16.29 percent in less exposed region. Another 13.43 percent heads felt that income level trends were somewhat important to household food and nutrition security in more exposed region and this was 19.43 percent in less exposed region. A high percentage of heads, 81.43 percent in more exposed region and 64.29 percent in less exposed region felt that trend in income levels were very important for their household food and nutrition security.

Table 6.13: Distribution of Heads by Trends in Income level since 1995

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Strong decrease	14	4.00	76	21.71	90	12.86
Some decrease	44	12.57	82	23.43	126	18.00
No change	24	6.86	50	14.29	74	10.57
Some increase	219	62.57	107	30.57	326	46.57
Strong increase	46	13.14	32	9.14	78	11.14
NOR	3	0.86	3	0.86	6	0.86
Total	350	100.00	350	100.00	700	100.00
Is it important for food and nutrition situation of the household						
Not important	18	5.14	57	16.29	75	10.71
Some what important	47	13.43	68	19.43	115	16.43
Very important	285	81.43	225	64.29	510	72.86
Total	350	100.00	350	100.00	700	100.00

6.14 Trends in Real Price Level

Changes in real price levels of commodities consumed affect the use of those commodities. Consumer may substitute the particular commodity for another commodity that is cheaper. This may have impact on household level food security and nutrition. Those heads reporting strong decrease in real price levels were 2.57 percent in more exposed region compared to 6.86 percent in less exposed region, while 7.43 percent reported some decrease in more exposed region as against 18.86 percent in less exposed region (table 6.14). However, 53.71 percent of heads in more exposed region reported some increase in real price levels compared to 32.57 percent in less exposed region. In comparison, 31.71 percent heads reported strong increase in real price levels in more

exposed region as against 34.57 percent in less exposed region. How important are these trends from household food and nutrition security point of view, 13.71 percent reported that they were not important in more exposed region compared to 21.14 percent in less exposed region. Another 13.71 percent heads felt that real price level trends were somewhat important to household food and nutrition security in more exposed region and this was 21.71 percent in less exposed region. A high percentage of heads, 72.57 percent in more exposed region and 57.14 percent in less exposed region felt that trend in real price levels were very important for their household food and nutrition security

Table 6.14: Distribution of Heads by Trends in Real Price Level since 1995

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Strong decrease	9	2.57	24	6.86	33	4.71
Some decrease	26	7.43	66	18.86	92	13.14
No change	14	4.00	25	7.14	39	5.57
Some increase	188	53.71	114	32.57	302	43.14
Strong increase	111	31.71	121	34.57	232	33.14
NOR	2	0.57		0.00	2	0.29
Total	350	100.00	350	100.00	700	100.00
Is it important for food and nutrition situation of the household						
Not important	48	13.71	74	21.14	122	17.43
Some what important	48	13.71	76	21.71	124	17.71
Very important	254	72.57	200	57.14	454	64.86
Total	350	100.00	350	100.00	700	100.00

6.15 Trends in Nutritional Value of food Intake

Changes in nutritional value of food intake are consequence of changing incomes levels, changing income generating activities, inputs etc. What had been the trends in the nutritional value of food intake since 1995? Those heads reporting strong decrease in nutritional value of food intake were 47.43 percent in more exposed region compared to 46.57 percent in less exposed region, while 34 percent reported some decrease in more exposed region as against 34.57 percent in less exposed region (table 6.15). However, 12.86 percent of heads in more exposed region reported some increase in nutritional value of food intake compared to 8.86 percent in less exposed region. In comparison, only 2.57 percent heads reported strong increase in nutritional value of food intake in more exposed region as against 4 percent in less exposed region. How important are these trends

from household food and nutrition security point of view, 44.86 percent reported that they were not important in more exposed region compared to 30 percent in less exposed region. Another 27.71 percent heads felt that nutritional value of food intake was somewhat important to household food and nutrition security in more exposed region and this was 30 percent in less exposed region. 27.43 percent heads in more exposed region and 40 percent in less exposed region felt that trend in nutritional value of food intake was very important for their household food and nutrition security.

Table 6.15: Distribution of Heads by Trends in Nutritional value of food Intake since 1995

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Strong decrease	166	47.43	163	46.57	329	47.00
Some decrease	119	34.00	121	34.57	240	34.29
No change	11	3.14	21	6.00	32	4.57
Some increase	45	12.86	31	8.86	76	10.86
Strong increase	9	2.57	14	4.00	23	3.29
Total	350	100.00	350	100.00	700	100.00
Is it important for food and nutrition situation of the household						
Not important	157	44.86	105	30.00	262	37.43
Some what important	97	27.71	105	30.00	202	28.86
Very important	96	27.43	140	40.00	236	33.71
Total	350	100.00	350	100.00	700	100.00

6.16 Trends in Public investment

Changes in public investment also affect household food and nutritional security. If investments in irrigation projects go down then crop production is affected and it thereby influences food and nutrition security as less is available for a household from own production. What have been the trends in the public investments since 1995? Those heads reporting strong decrease in public investment were just 3.43 percent in more exposed region compared to 13.71 percent in less exposed region, while 13.71 percent reported some decrease in more exposed region as against 16.57 percent in less exposed region (table 6.16). However, 29.14 percent of heads in more exposed region reported some increase in public investment compared to 20 percent in less exposed region. It is also the case that 13.14 percent heads found no change in public investment in more exposed region but 36.29 percent reported no change in less exposed region. In comparison, 39.71 percent heads reported strong increase in public investment in more exposed region as against 12.86 percent in less exposed region.

Table 6.16: Distribution of Heads by Trends in Public investment since 1995

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Strong decrease	12	3.43	48	13.71	60	8.57
Some decrease	48	13.71	58	16.57	106	15.14
No change	46	13.14	127	36.29	173	24.71
Some increase	102	29.14	70	20.00	172	24.57
Strong increase	139	39.71	45	12.86	184	26.29
NOR	3	0.86	2	0.57	5	0.71
Total	350	100.00	350	100.00	700	100.00
Is it important for food and nutrition situation of the household						
Not important	65	18.57	103	29.43	168	24.00
Some what important	50	14.29	77	22.00	127	18.14
Very important	235	67.14	170	48.57	405	57.86
Total	350	100.00	350	100.00	700	100.00

How important are these trends from household food and nutrition security point of view, 18.57 percent reported that they were not important in more exposed region compared to 29.43 percent in less exposed region. Another 14.29 percent heads felt that public investment was somewhat important to household food and nutrition security in more exposed region and this was 22 percent in less exposed region. A high percentage of 67.14 percent heads in more exposed region and 48.57 percent in less exposed region felt that trend in public investment is very important for their household food and nutrition security.

6.17 Income Level of the Households

The average annual income level of a household in more exposed region is Rs. 60993, while it is Rs. 42238 in 2007. The corresponding figures in 1995 were Rs. 45685 and Rs. 34972 respectively in less exposed region. In 2007 over 1995, extreme poverty has gone down as in 1995 there were 21.43 percent households and in 2007, the percentage households were 4.86 in more exposed region (table 6.17).

Table 6.17: Distribution of Households by Income Levels

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Income Level of HH in 2007						
Extreme Poverty	17	4.86	24	6.86	41	5.86
Below Poverty Line	109	31.14	129	36.86	238	34.00
Around Poverty Line	33	9.43	55	15.71	88	12.57
Above 120 Rs.	191	54.57	142	40.57	333	47.57
Total	350	100.00	350	100.00	700	100.00
Income Level of HH in 1995						
No Response	2	0.57	1	0.29	3	0.43
Extreme Poverty	75	21.43	62	17.71	137	19.57
Below Poverty Line	118	33.71	140	40.00	258	36.86
Around Poverty Line	29	8.29	59	16.86	88	12.57
Above 120 Rs.	126	36.00	88	25.14	214	30.57
Total	350	100.00	350	100.00	700	100.00

The corresponding proportions in less exposed region were 17.71 percent in 1995 and 6.86 percent in 2007. However, extreme poverty situation has reversed in 2007 as against 1995 in both the regions. A higher proportion of households in 2007 in less exposed region were below poverty line and same was the situation in 1995; the proportions have come down. Deterioration in poverty line situation is observed in more exposed region, while some improvement is observed in less exposed region. In 2007, 55 percent of households were above poverty line in more exposed region; an improvement over 1995 (36%). In case of less exposed region a similar change is observed.

6.18 Average Expenditure

The average expenditure per month is Rs. 3021 in more exposed region and Rs. 994 in less exposed region (table 6.18). The major expenditure item is food in both the regions and it is followed by agricultural inputs, clothing & shoes, education and transport.

Table 6.18: Distribution of Households by Average Expenditure

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Total Monthly Expenditure	3021	1451	2520	994	2770	1268
Housing	87	129	51	95	69	115
Food	1142	494	1186	555	1164	525
Agricultural inputs	419	375	295	237	357	320
Hiring labour	15	51	8	60	11	56
Water	8	27	1	12	5	21
Sanitation	74	109	10	32	42	86
Education	226	272	135	169	181	231
Medical expenses	141	166	113	89	127	134
Clothing, shoes	269	181	222	147	245	167
Social events	151	164	131	148	141	157
Transportation	157	153	112	76	134	123
Fodder for Animals	108	192	128	172	118	182
Others (Electricity)	230	274	131	161	180	230
Total	350	350	350	350	700	700

7. Housing Characteristics

7.1 Type of House and Source of Drinking Water

All the sample households had own houses, though the type of house may vary in terms of number of room, brick made or thatched, having facilities or not. Houses may also not have drinking water source within the house. Table 7.1 shows that 26.86 percent households in more exposed region have piped into dwelling type of drinking water source compared to just 1.14 percent households in less exposed region. There are another 2.29 percent households with piped into yard or plot drinking water source in more exposed region. Public tap is a source of drinking water for another 6.29 percent households in more exposed region and 2.86 percent households in less exposed region. Tube well is source of drinking water for 7.43 percent households when it is a source for 4.86 percent in less exposed region. The main source of drinking water is hand pump (42.57%) for households in both the regions, but a much higher percentage of households in less exposed region depend on hand pump as drinking water source (78.29%). Unprotected dug well is a source for 14.29 percent households in more exposed region compared to 10.57 percent in less exposed region. The other source of drinking water in use are rainwater collection source, unprotected dug well, pond and river.

Table 7.1: Distribution of Households with Drinking Water Source

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Piped into dwelling	94	26.86	4	1.14	98	14.00
Piped into yard or plot	8	2.29	-	0.00	8	1.14
Public tap	22	6.29	10	2.86	32	4.57
Tube well	26	7.43	17	4.86	43	6.14
Protected dug well	1	0.29	1	0.29	2	0.29
Rainwater collection	-	-	3	0.86	3	0.43
Hand pump	149	42.57	274	78.29	423	60.43
Unprotected dug well	50	14.29	37	10.57	87	12.43
Pond, river	-	0.00	4	1.14	4	0.57
Total	350	100.00	350	100.00	700	100.00

7.2 Toilet Facilities

What kind of toilet facilities do these households have? Table shows that households mainly use open field for toilet purposes and the proportion of such households are higher in less exposed region compared to more exposed region. The other toilet type used is open pit (16.29% in more exposed region and 9.43% in less exposed region). Traditional pit is also in use in 12.57 percent households in more exposed region compared to just 1.14 percent households in less exposed region (table 7.2).

Table 7.2: Distribution of Toilet facility

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Traditional pit	44	12.57	4	1.14	48	6.86
Open pit	57	16.29	33	9.43	90	12.86
Open field	249	71.14	313	89.43	562	80.29
Total	350	100.00	350	100.00	700	100.00

7.3 Type of Roofing and Flooring

As all have their own houses, they were asked to respond on the type of roofing and flooring the house had. Table 7.3 reveals that 59.43 percent houses in more exposed region had stone slabs on the roof compared to 39.43 percent in less exposed region. Also, 33.71 percent houses had thatch, concrete and wood roofing in more exposed region as against 46 percent houses in less exposed region. It is also noticed that iron sheet roofing is there in 6.86 percent houses in more exposed region and a much higher proportion of houses in less exposed region (14.57%). On the type of flooring, 55.43 percent houses had cemented flooring, 40.29 percent mud flooring and 4.29 percent stone tiles flooring in more exposed region. On the other hand, the corresponding proportions were 36, 61.71 and 2.29 percent in less exposed region.

Table 7.3: Distribution of Houses by Type of Roofing and Flooring

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Type of Roofing						
Iron sheet	24	6.86	51	14.57	75	10.71
Stone slabs	208	59.43	138	39.43	346	49.43
Others	118	33.71	161	46.00	279	39.86
Total	350	100.00	350	100.00	700	100.00
Type of Flooring						
Cemented	194	55.43	126	36.00	320	45.71
Mud	141	40.29	216	61.71	357	51.00
Stonetiles	15	4.29	8	2.29	23	3.29
Total	350	100.00	350	100.00	700	100.00

7.4 Type of Wall

Majority of houses (68.29%) in more exposed region have stone wall followed by bricks wall (18.29%) and mud/soil based walls (13.43%) in more exposed region while in the less exposed region the corresponding proportions were 41.43, 32.57 and 26 percent respectively (table 7.4)

Table 7.4: Distribution of Houses by Type of Wall

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Mud/ Soil	47	13.43	91	26.00	138	19.71
Bricks	64	18.29	114	32.57	178	25.43
Stone	239	68.29	145	41.43	384	54.86
Total	350	100.00	350	100.00	700	100.00

7.5 Asset Possession

Table-7.5 shows that 62 percent households have electricity, 34.29 percent have radio/tape recorder, 32.29 percent television, 9.71 percent refrigerator, 39.14 percent bicycles, 15.14 percent scooter/ motorcycles, 2.29 percent car, 6.86 percent camel cart, 7.14 percent bullock cart and 4 percent tractors in more exposed region. In less exposed region, 32.71 percent household have electricity, 15.14 percent have radio/tape recorder, 12.86 percent television, 0.86 percent refrigerator, 41.43 percent bicycles, 10.86 percent scooter/ motorcycles, 0.29 percent car, 2.2 percent camel cart, 20.29 percent bullock cart and 2 percent tractors. Thus, we find the households in less exposed region have relatively low level of assets. What is the cooking fuel use by these households? It is found that in more exposed region, a higher proportion of households

(16%) used cooking gas (LPG) and 76 percent households use firewood and straw with 6.86 percent households using cow dung cakes. In less exposed region, the major fuel used is firewood and straw (86.87% households) and cow dung cakes (1.71% households). The other fuels used are biogas and kerosene by a few households in both the regions. This again shows that less exposed region is still relying on traditional cooking fuels.

Table 7.5: Distribution of Houses with Assets/Facilities

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Electricity	217	62.00	118	33.71	335	47.86
Radio, tape recorder	120	34.29	53	15.14	173	24.71
Television	113	32.29	45	12.86	158	22.57
Refrigerator	34	9.71	3	0.86	37	5.29
Bicycle	137	39.14	145	41.43	282	40.29
Scooter/ motorcycle	53	15.14	38	10.86	91	13.00
Car	8	2.29	1	0.29	9	1.29
Camel cart	24	6.86	8	2.29	32	4.57
Bullock cart	25	7.14	71	20.29	96	13.71
Tractor	14	4.00	7	2.00	21	3.00
Cooking Fuel - LPG	56	16.00	5	1.43	61	8.71
Cooking Fuel - biogas	3	0.86		0.00	3	0.43
Cooking Fuel - kerosene	1	0.29	1	0.29	2	0.29
Cooking Fuel - firewood, straw	266	76.00	303	86.57	569	81.29
Cooking Fuel - kande (cow dung cakes)	24	6.86	41	11.71	65	9.29

7.6 Family Composition

In more exposed region, households with up to 5 family members have increased significantly in 2007 over 1995 and with little low intensity in less exposed region. There is a reduction in households with 6-10 family members in both the regions (table 7.6). The same is the case with households with 10 or more family members. This means that in these years there is family size reduction.

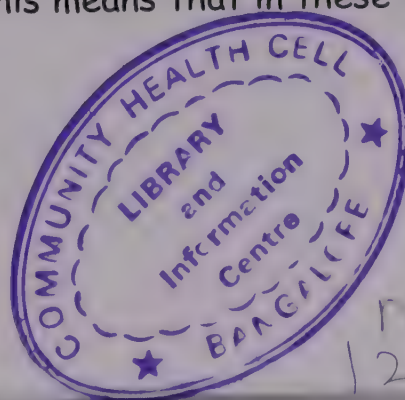


Table 7.6: Distribution of Family Members, 2007 and 1995

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Family Size in 2007						
0-5	215	61.43	180	51.43	395	56.43
6-10	126	36.00	155	44.29	281	40.14
10+	9	2.57	15	4.29	24	3.43
Family Size in 1995						
0-5	155	44.29	145	41.43	300	42.86
6-10	168	48.00	184	52.57	352	50.29
10+	27	7.71	21	6.00	48	6.86

7.7 Age of Head of Households

In the sample, 12.57 percent heads are aged below 30 years in more exposed region and another 57.15 percent heads are aged between 30 to 50 years. There are around 20 percent heads who are aged 50 years or more (table 7.7). In less exposed region, the corresponding proportions are 15.71 percent, 58.57 percent and 25.72 percent respectively. The data shows that in less exposed region, except for heads aged 30-40 years and 40-50 years, in all other age groups the heads are younger.

Table 7.7: Distribution of Age of Head of Households

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Age of Head (Yrs)						
<30	44	12.57	55	15.71	99	14.14
30-40	101	28.86	100	28.57	201	28.71
40-50	99	28.29	105	30.00	204	29.14
50-60	68	19.43	66	18.86	134	19.14
>60	38	10.86	24	6.86	62	8.86
Total	350	100.00	350	100.00	700	100.00

8. Monthly Household Consumption Behaviour

8.1 Background

Rajasthan is a state where most people are vegetarian and have fixed food habits. There are regional differentiations in food habits and traditionally looked at food in terms of hot and cold foods. Different occasions have different foods. The major food items consumed in rural households are wheat, rice, tubers and roots, legumes, vegetables, meat and oils beside milk and milk products. The survey had thrown up a variety of information food habits of rural people in more exposed and less exposed regions. This section provides information on various food items in detail (Appendices 1 through 51).

8.2 Wheat

Very few households consume wheat though there are few households in more exposed region that consume wheat. Traditionally wheat in Rajasthan was used by rich as even the land revenue system promoted rich farmers to grow wheat as it carried higher land revenue. In the last few decades, wheat was made available through public distribution system and people at the lower economic strata started consuming wheat. We find that a higher proportion of households (84.29%) in more exposed region consume wheat 6 to 7 days a week while a lower proportion (60.86%) consume wheat the whole week in less exposed region. The major reason for this is that wheat requires fuel to cook compared to traditional foods like barley etc. and increasing more women are entering labour market either through wage employment programmes or otherwise. For 10.29 percent households, wheat is consumed 3, 4, 5 days a week in more exposed region and a higher percentage (26.57%) in less exposed region. It is surprising that a higher percentage of households in less exposed region are consuming wheat 1 to 2 days a week (11% compared to 3%). The households that do not consume wheat do so because wheat is priced higher than other cereals.

8.3 Rice

Rice is not a staple diet in Rajasthan, though it is cooked on festivals and when guests visit families. It is revealed that 41.71 percent households in more exposed region did not consume rice since last month when 52.29 percent households did so in less exposed region. Another 34.29 percent households in more exposed region consumed rice once a month and this percentage are 24 in less exposed region. It is also found that 16 percent of households in more exposed region consumed rice 2 to 3 days in a month when 19.71 percent households did so in less exposed region. This is because public distribution system has started also selling rice recently and rice is easy to cook. If rice is not consumed it is because it is expensive as 34.86 percent households in more exposed region reported it and 41.14 percent did so in less exposed region. Habit of not consuming rice is expressed by sizeable number of households.

8.4 Maize

Maize has been a staple food in most parts of Rajasthan. Presently (last month) majority of the households did not consume maize in both the regions. It is basically consumed 1 to 2 days a week in both the regions. The major reasons for not consuming it are that it is expensive, and not a part of the habit, though this varies across two regions. Non availability is another problem quoted by respondents. This also reflects on the changing food habits. Southern Rajasthan is a maize eating area.

8.5 Barley

Barley has been one of the traditional foods in Rajasthan especially poor. However, we find that in 45 percent households in more exposed region did not use barley since last month while this percentage was 38 percent in less exposed region. Barley is more of habit in more exposed region compared to less exposed region. Why barley is not consumed is primarily because it is not a habit, though availability is also a problem.

8.6 Millets

Millets are not part of the food basket in both the regions, though in both the regions families do consume it 1 to 3 days a month. The major reason for this is that millets are not available and also that they are not part of the food habit. In less exposed region, millets are also expensive.

8.7 Other Cereals

In case of other cereals, majority of households reported that they did not consume other cereals. There are a few households that reported some consumption of other cereals.

8.8 Potato

Potato has become an important vegetable in Indian households and cooked in varied manners. This is the reasons that only 24.29 percent households did not report that they used potato during last month in more exposed region and only 9.43 percent did so in less exposed region. We find that 24 percent households use potatoes for 3 to 5 days a week in more exposed region and 30.29 percent in less exposed region. Another 23.43 percent households consumed potatoes 1 to 2 days a week in more exposed region compared to 30.29 percent in less exposed region. Thus, potatoes are consumed regularly in both the regions. It is not in the habit to eat potatoes in more exposed region and also it is expensive. In less exposed region only few households reported so.

8.9 Radish

Radish (mollee) is not consumed by large number of households. It is mainly available in winters. Households do consume it but not everyday. It is more a habit in more exposed region. Its non availability and being expensive are two major reasons for not being part of the consumption basket.

last month. Also it is consumed as a salad and few households do cook it and consume it as a vegetable.

8.10 Arvi

This vegetable-arvi- a root is not in the menu for large number of families. It is basically consumed once or twice a month. Why it is not consumed is that it is not available, it is expensive and it is not in habit. This habit is more prominent in less exposed region. Arvi is more an urban diet vegetable.

8.11 Ginger

In the sampled households, ginger is largely not consumed in less exposed region (64%) compared to 44 percent households in more exposed region. One does find ginger consumption more frequent in about 29 percent households in more exposed region while only 14 percent households do so in less exposed region. Ginger is used as an ingredient in vegetables and has medicinal qualities. What are the reasons for not consuming ginger? It is expensive; 57 percent say so in less exposed region and 29 percent households in more exposed region. It is not a habit also is important in more exposed region.

8.12 Garlic

In the sampled households, garlic is largely consumed, but little less in more exposed region (4%) compared to 11% households in less exposed region. One does find garlic consumption almost daily in both the regions though it is more frequent in more exposed region. Garlic is used as an ingredient in vegetables and has medicinal qualities. What are the reasons for not consuming garlic? It is expensive; 8.57 percent say so in less exposed region and 1.43 percent households in more exposed region. It is not a habit also is reported by few households in both the regions.

8.13 Turmeric

In the sampled households, turmeric is used while cooking the vegetables to add colour. It has medicinal value. It is also added to hot milk and is very effective in injuries. One does find turmeric being consumed almost daily in both the regions though it is more frequent in less exposed region. Turmeric is used as an ingredient in vegetables and has medicinal qualities. What are the reasons for not consuming it? The reasons cited are that it is expensive; and not in habit to consume it.

8.14 Pulses

Pulses are part of Indian menu. They are rich in protein and a variety of pulses are grown in Rajasthan. In the sampled households, only 1.14 percent household in more exposed region do not consume pulses and 3.14 percent in less exposed region. There are 6

percent households in more exposed region using pulses once a month and this percentage is 5.14 percent in less exposed region. However, around 40 percent of households consume it 3, 4, 5 and more days a week in more exposed region when 35 percent do so in less exposed region. Pulses are part of diet for around 29 percent in both the regions for 1 to 2 days a week. What are the reasons for not consuming pulses? It is expensive; 2.86 percent say so in less exposed region.

8.15 Gram

In the sampled households, gram is largely not consumed; 69 percent in more exposed region and 85 percent in less exposed region. Gram is grown in Rajasthan during winters and is rich in proteins. There are 12.57 percent households consuming gram once a month and only 5.71 percent do so in less exposed region while 13.43 percent households consume gram every 2 to 3 days a week in more exposed region compared to only 7.71 percent in less exposed region. There are very few families consuming gram regularly in both the regions. What are the reasons for not consuming gram? It is not available; 44.57 percent say so in more exposed region and 27.43 percent households in less exposed region. It is expensive; 12.86 percent households say so in more exposed region and 53.14 percent in less exposed region. Eating gram is not in the habit of 11.71 percent households in more exposed region compared to 4.86 percent households in less exposed region.

8.16 Groundnuts

Groundnuts are produced in Rajasthan and consumed after roasting them. Oil is also extracted and used as cooking medium. So this is the reasons why most households do not use groundnuts regularly; 85 percent do not use in more exposed region and 92 percent in less exposed region. Of the remaining households, consumption of groundnuts is either once a month or 2 to 3 days a month in both the regions. What are the reasons for not consuming groundnuts? It is expensive; 28.86 percent say so in more exposed region and 63.71 percent households in less exposed region. It is not in habit in case of 35.71 percent households in more exposed region and for 14 percent households in less exposed region. Non availability is also reported by large number of households in both the region; 20.29 percent in more exposed region and 14.29 percent households in less exposed region.

8.17 Soyabean

Soyabean is grown in less exposed region and recently has become part of cropping pattern. Though it can be used as a vegetable and may be eaten after cooking, it has not become a part of regular diet. Oil is also extracted from it and used as cooking medium. Oil also is not in the habit of Rajasthani people in rural areas. In the sampled households, soyabean is largely not consumed; 69 percent in more exposed region and 64 percent in less exposed region. Around one quarter of households do use soyabean 3, 4, 5 days a week in both the regions. What are the reasons for not consuming soyabean? It is expensive; 1.43 percent says so in less exposed region and 13.14 percent

households in more exposed region. It is not in habit in case of 43.71 percent households in more exposed region and 59.14 percent households in less exposed region. Non availability is cited as a reason by quite a few households in both the regions.

8.18 Green pea

Green pea is a seasonal vegetable and is mostly available during winters. The sampled households largely do not consume green peas; 86 percent in more exposed region and 94 percent in less exposed region say so. The consumption of green peas is relatively more in households in more exposed region compared to less exposed households, but the consumption is once a month or once or twice a week mainly and it is expected as no household would consume a particular vegetable every day. What are the reasons for not consuming green peas? It is expensive; 28.29 percent say so in more exposed region and 56.86 percent households in less exposed region. It is not in habit also in 19.43 percent households in more exposed region and 10.57 percent households in less exposed region. Non availability is another factor for non consumption as reported by 38 percent households in more exposed region and 27 percent households in less exposed region.

8.19 Cabbage

Cabbage is also a seasonal vegetable and traditionally not a very popular vegetable in rural areas. Now as more people travel to towns and cities, it is becoming a part of the food basket. 41.43 percent households in more exposed region reportedly did not consume cabbage in the last month and this percentage was 56 percent in less exposed region. We also find that 23.14 percent households in more exposed region consume cabbage once a month and 20 percent do so in less exposed region. Another 17 percent households consume cabbage 2 or 3 days in a month in more exposed region and 20 percent households in less exposed region. Further, cabbage consumption 2 or 3 days a week is also reported by 17 percent households in more exposed region, but only 3.71 percent in less exposed region. What are the reasons for not consuming cabbage? It is expensive; 20 percent say so in more exposed region and 33.43 percent households in less exposed region. It is not in habit; 8.86 percent say so in more exposed region and 16.86 percent households in less exposed region. Non availability is also reported by one-tenth of households in more exposed region and 6 percent in less exposed region.

8.20 Bitter Gourd

In the sampled households, bitter gourd is largely not consumed, but a little less in more exposed region (4%) compared to 11% households in less exposed region.

8.21 Other Vegetables

Detailed information was gathered on other vegetables and fruits from the sampled households. A common thread comes out that as many vegetables are seasonal and expensive from rural

household's point of view, their being part of food basket varies across vegetables. In certain cases there is no habit of consuming the particular food item. It is also clear the green vegetables are consumed by sampled households in both the regions.

8.22 Fruits

Fruits have become part of food basket in both the regions and are largely not daily consumed. Purchase of fruits is largely made on a visit to town or fair. The households that have members working in towns may bring fruits home. Banana is the most consumed fruit as it is relatively cheap and easily available. Fruits like pineapple, grapes, papaya, apple, watermelon, orange, mango and muskmelon are mainly not consumed because they are quite costly and out of reach of many households. These fruits also are not part of normal food basket. Such fruits are thought to be given a person who is ill. Some fruits are seasonal and are not available round the year.

8.23 Meat, Eggs, Milk and Milk Products

Meat, eggs, chicken and fish are not part of regular diet in rural Rajasthan. Majority of households have reported that they do not consume these commodities. There are religious reasons, expensive nature of these food item and families are not habitual to these items. Milk and milk products are largely consumed. However, 19 percent households in less exposed region do not consume milk and milk products and this percentage is only 3.43 percent in more exposed region. Majority consume these items; 83 percent in more exposed region and 71 percent on less exposed region. In less exposed region, the main reason cited for not consuming milk is it being expensive. Even if the household has milch animal they may be selling it.

9. Conclusion

The study has shown that the impact of WTO trade agreements is not very explicit in Rajasthan. Since 1995, changes in consumption behaviour have occurred and more exposed region is visibly showing greater changes since 1995. Green vegetables, fruits, meat and milk products are not regularly used in both the regions. This would naturally have impact on nutritional level. Prices have gone up across the board in Rajasthan and those with lower incomes have been affected the most. These are mainly in less exposed region. The price rise is more due to demand supply imbalances. Domestic policies under liberalization regime in India have also raised the prices as subsidies have gone down. India does not import agricultural commodities to a large extent and so impact on domestic rural users is not very clear. There is a shift in consumption basket which has to do more with local conditions. For instance, if wheat is being increasingly consumed, it has to do with many other factors including women's work outside home, less time to cook, etc. However, cooking oil import has adverse impact on local production and consumption.

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Appendix

Appendix 1: Distribution of Households by Wheat Used in Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	8	2.29	2	0.57	10	1.43
2 or 3 days in a month	1	0.29	4	1.14	5	0.71
1 or 2 days in a week	10	2.86	38	10.86	48	6.86
3,4,5 days in a week	36	10.29	93	26.57	129	18.43
6 or 7 days in a week	295	84.29	213	60.86	508	72.57
Total	350	100.00	350	100.00	700	100.00

Appendix 2: Distribution of Households by Rice Used in Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	146	41.71	183	52.29	329	47.00
1 day in a month	120	34.29	84	24.00	204	29.14
2 or 3 days in a month	56	16.00	69	19.71	125	17.86
1 or 2 days in a week	25	7.14	11	3.14	36	5.14
3,4,5 days in a week	3	0.86	2	0.57	5	0.71
6 or 7 days in a week	-	-	1	0.29	1	0.14

Reasons for not using Rice

Used	204	58.29	167	47.71	371	53.00
Not available	1	0.29	5	1.43	6	0.86
Expensive	122	34.86	144	41.14	266	38.00
No habit	23	6.57	34	9.71	57	8.14
Total	350	100.00	350	100.00	700	100.00

Appendix 3: Distribution of Households by Maize Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	301	86.00	297	84.86	598	85.43
1 day in a month	27	7.71	19	5.43	46	6.57
2 or 3 days in a month	9	2.57	14	4.00	23	3.29
1 or 2 days in a week	11	3.14	18	5.14	29	4.14
3,4,5 days in a week	1	0.29	1	0.29	2	0.29
6 or 7 days in a week	1	0.29	1	0.29	2	0.29

Reasons for not using Maize

Used	49	14.00	53	15.14	102	14.57
Not available	51	14.57	90	25.71	141	20.14
Expensive	126	36.00	41	11.71	167	23.86
No habit	124	35.43	166	47.43	290	41.43
Total	350	100.00	350	100.00	700	100.00

Appendix 4: Distribution of Households by Barley Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	157	44.86	134	38.29	291	41.57
1 day in a month	24	6.86	22	6.29	46	6.57
2 or 3 days in a month	32	9.14	62	17.71	94	13.43
1 or 2 days in a week	77	22.00	86	24.57	163	23.29
3,4,5 days in a week	41	11.71	39	11.14	80	11.43
6 or 7 days in a week	19	5.43	7	2.00	26	3.71

Reasons for not using Barley

Used	193	55.14	216	61.71	409	58.43
Not available	18	5.14	33	9.43	51	7.29
Expensive	6	1.71	18	5.14	24	3.43
No habit	133	38.00	83	23.71	216	30.86
Total	350	100.00	350	100.00	700	100.00

Appendix 5: Distribution of Households by Millets Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	328	93.71	328	93.71	656	93.71
1 day in a month	9	2.57	8	2.29	17	2.43
2 or 3 days in a month	9	2.57	5	1.43	14	2.00
1 or 2 days in a week	3	0.86	7	2.00	10	1.43
3,4,5 days in a week	1	0.29	2	0.57	3	0.43

Reasons for not using Millet

Used	22	6.29	22	6.29	44	6.29
Not available	103	29.43	91	26.00	194	27.71
Expensive	5	1.43	27	7.71	32	4.57
No habit	220	62.86	210	60.00	430	61.43
Total	350	100.00	350	100.00	700	100.00

Appendix 6: Distribution of Households by Other Cereals Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	345	98.57	349	99.71	6494	927.71
1 day in a month	-	-	1	0.29	1	0.14
1 or 2 days in a week	3	0.86	-	-	3	0.43
3,4,5 days in a week	1	0.29	-	-	1	0.14
6 or 7 days in a week	1	0.29	-	-	1	0.14
Total	350	100.00	350	100.00	700	100.00

Appendix 7: Distribution of Households by Potato Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	85	24.29	33	9.43	118	16.86
1 day in a month	10	2.86	17	4.86	27	3.86
2 or 3 days in a month	63	18.00	69	19.71	132	18.86
1 or 2 days in a week	82	23.43	106	30.29	188	26.86
3,4,5 days in a week	84	24.00	115	32.86	199	28.43
6 or 7 days in a week	26	7.43	10	2.86	36	5.14

Reasons for not using Potato

Used	265	75.71	317	90.57	582	83.14
Not available	12	3.43	7	2.00	19	2.71
Expensive	26	7.43	15	4.29	41	5.86
No habit	47	13.43	11	3.14	58	8.29
Total	350	100.00	350	100.00	700	100.00

Appendix 8: Distribution of Households by Radish Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	202	57.71	172	49.14	374	53.43
1 day in a month	27	7.71	44	12.57	71	10.14
2 or 3 days in a month	36	10.29	58	16.57	94	13.43
1 or 2 days in a week	49	14.00	65	18.57	114	16.29
3,4,5 days in a week	14	4.00	8	2.29	22	3.14
6 or 7 days in a week	22	6.29	3	0.86	25	3.57

Reasons for not using Radish

Used	148	42.29	178	50.86	326	46.57
Not available	123	35.14	75	21.43	198	28.29
Expensive	51	14.57	82	23.43	133	19.00
No habit	28	8.00	15	4.29	43	6.14
Total	350	100.00	350	100.00	700	100.00

Appendix 9: Distribution of Households by Arvi Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	304	86.86	309	88.29	613	87.57
1 day in a month	30	8.57	24	6.86	54	7.71
2 or 3 days in a month	7	2.00	11	3.14	18	2.57
1 or 2 days in a week	6	1.71	4	1.14	10	1.43
3,4,5 days in a week	2	0.57	2	0.57	4	0.57
6 or 7 days in a week	1	0.29			1	0.14

Reasons for not using Arvi

Used	46	13.14	40	11.43	86	12.29
Not available	123	35.14	83	23.71	206	29.43
Expensive	88	25.14	45	12.86	133	19.00
No habit	93	26.57	182	52.00	275	39.29
Total	350	100.00	350	100.00	700	100.00

Appendix 10: Distribution of Households by Ginger Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	154	44.00	223	63.71	377	53.86
1 day in a month	19	5.43	12	3.43	31	4.43
2 or 3 days in a month	45	12.86	42	12.00	87	12.43
1 or 2 days in a week	31	8.86	23	6.57	54	7.71
3,4,5 days in a week	35	10.00	34	9.71	69	9.86
6 or 7 days in a week	66	18.86	16	4.57	82	11.71

Reasons for not using Ginger

Used	196	56.00	124	35.43	320	45.71
Not available	3	0.86	3	0.86	6	0.86
Expensive	102	29.14	199	56.86	301	43.00
No habit	49	14.00	20	5.71	69	9.86
Other (Lack of access)	-	-	4	1.14	4	0.57
Total	350	100.00	350	100.00	700	100.00

Appendix 11: Distribution of Households by Garlic Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	14	4.00	37	10.57	51	7.29
1 day in a month	5	1.43	9	2.57	14	2.00
2 or 3 days in a month	24	6.86	23	6.57	47	6.71
1 or 2 days in a week	52	14.86	71	20.29	123	17.57
3,4,5 days in a week	43	12.29	48	13.71	91	13.00
6 or 7 days in a week	212	60.57	162	46.29	374	53.43

Reasons for not using Garlic

Used	336	96.00	313	89.43	649	92.71
Not available	-	-	1	0.29	1	0.14
Expensive	5	1.43	30	8.57	35	5.00
No habit	8	2.29	6	1.71	14	2.00
Other (Lack of access)	1	0.29	-	-	1	0.14
Total	350	100.00	350	100.00	700	100.00

Appendix 12: Distribution of Households by Turmeric Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	6	1.71	3	0.86	9	1.29
1 day in a month	-	0.00	1	0.29	1	0.14
2 or 3 days in a month	6	1.71	3	0.86	9	1.29
1 or 2 days in a week	4	1.14	7	2.00	11	1.57
3,4,5 days in a week	14	4.00	9	2.57	23	3.29
6 or 7 days in a week	320	91.43	327	93.43	647	92.43

Reasons for not using Turmeric

Used	343	98.00	347	99.14	690	98.57
Not available	-	-	1	0.29	1	0.14
Expensive	2	0.57	2	0.57	4	0.57
No habit	5	1.43	-	-	5	0.71
Total	350	100.00	350	100.00	700	100.00

Appendix 13: Distribution of Households by Pulses Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	4	1.14	11	3.14	15	2.14
1 day in a month	21	6.00	18	5.14	39	5.57
2 or 3 days in a month	86	24.57	96	27.43	182	26.00
1 or 2 days in a week	100	28.57	102	29.14	202	28.86
3,4,5 days in a week	114	32.57	96	27.43	210	30.00
6 or 7 days in a week	25	7.14	27	7.71	52	7.43

Reasons for not using Pulses

Used	346	98.86	339	96.86	685	97.86
Not available	2	0.57	1	0.29	3	0.43
Expensive	1	0.29	10	2.86	11	1.57
No habit	1	0.29	-	-	1	0.14
Total	350	100.00	350	100.00	700	100.00

Appendix 14: Distribution of Households by Gram Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	242	69.14	299	85.43	541	77.29
1 day in a month	44	12.57	20	5.71	64	9.14
2 or 3 days in a month	47	13.43	27	7.71	74	10.57
1 or 2 days in a week	15	4.29	2	0.57	17	2.43
3,4,5 days in a week	2	0.57	2	0.57	4	0.57

Reasons for not using Gram

Used	108	30.86	51	14.57	159	22.71
Not available	156	44.57	96	27.43	252	36.00
Expensive	45	12.86	186	53.14	231	33.00
No habit	41	11.71	17	4.86	58	8.29
Total	350	100.00	350	100.00	700	100.00

Appendix 15: Distribution of Households by Groundnuts Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	297	84.86	323	92.29	620	88.57
1 day in a month	26	7.43	12	3.43	38	5.43
2 or 3 days in a month	20	5.71	8	2.29	28	4.00
1 or 2 days in a week	6	1.71	7	2.00	13	1.86
6 or 7 days in a week	1	0.29	-	-	1	0.14

Reasons for not using Groundnut

Used	53	15.14	28	8.00	81	11.57
Not available	71	20.29	50	14.29	121	17.29
Expensive	101	28.86	223	63.71	324	46.29
No habit	125	35.71	49	14.00	174	24.86
Total	350	100.00	350	100.00	700	100.00

Appendix 16: Distribution of Households by Soyabean Oil Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	230	65.71	225	64.29	455	65.00
1 day in a month	6	1.71	6	1.71	12	1.71
2 or 3 days in a month	5	1.43	8	2.29	13	1.86
1 or 2 days in a week	17	4.86	17	4.86	34	4.86
3,4,5 days in a week	87	24.86	92	26.29	179	25.57
6 or 7 days in a week	5	1.43	2	0.57	7	1.00

Reasons for not using Soyabean Oil

Used	120	34.29	125	35.71	245	35.00
Not available	30	8.57	13	3.71	43	6.14
Expensive	46	13.14	5	1.43	51	7.29
No habit	153	43.71	207	59.14	360	51.43
Other (Lack of access)	1	0.29	-	-	1	0.14
Total	350	100.00	350	100.00	700	100.00

Appendix 17: Distribution of Households by Green Peas Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	301	86.00	330	94.29	631	90.14
1 day in a month	15	4.29	11	3.14	26	3.71
2 or 3 days in a month	20	5.71	6	1.71	26	3.71
1 or 2 days in a week	14	4.00	3	0.86	17	2.43

Reasons for not using Green Peas

Used	50	14.29	20	5.71	70	10.00
Not available	133	38.00	94	26.86	227	32.43
Expensive	99	28.29	199	56.86	298	42.57
No habit	68	19.43	37	10.57	105	15.00
Total	350	100.00	350	100.00	700	100.00

Appendix 18: Distribution of Households by Cabbage Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	145	41.43	196	56.00	341	48.71
1 day in a month	81	23.14	70	20.00	151	21.57
2 or 3 days in a month	58	16.57	70	20.00	128	18.29
1 or 2 days in a week	59	16.86	13	3.71	72	10.29
3,4,5 days in a week	7	2.00	1	0.29	8	1.14

Reasons for not using Cabbage

Used	210	60.00	153	43.71	363	51.86
Not available	38	10.86	21	6.00	59	8.43
Expensive	70	20.00	117	33.43	187	26.71
No habit	31	8.86	59	16.86	90	12.86
Other (Lack of access)	1	0.29			1	0.14
Total	350	100.00	350	100.00	700	100.00

Appendix 19: Distribution of Households by Bitter Gourd Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	214	61.14	236	67.43	450	64.29
1 day in a month	72	20.57	52	14.86	124	17.71
2 or 3 days in a month	44	12.57	50	14.29	94	13.43
1 or 2 days in a week	19	5.43	11	3.14	30	4.29
3,4,5 days in a week	1	0.29	1	0.29	2	0.29

Reasons for not using Bitter Gourd

Used	136	38.86	114	32.57	250	35.71
Not available	83	23.71	69	19.71	152	21.71
Expensive	98	28.00	122	34.86	220	31.43
No habit	33	9.43	45	12.86	78	11.14
Total	350	100.00	350	100.00	700	100.00

Appendix 20: Distribution of Households by Carrot Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	190	54.29	192	54.86	382	54.57
1 day in a month	27	7.71	38	10.86	65	9.29
2 or 3 days in a month	43	12.29	73	20.86	116	16.57
1 or 2 days in a week	64	18.29	38	10.86	102	14.57
3,4,5 days in a week	17	4.86	8	2.29	25	3.57
6 or 7 days in a week	9	2.57	1	0.29	10	1.43

Reasons for not using Carrot

Used	160	45.71	158	45.14	318	45.43
Not available	131	37.43	91	26.00	222	31.71
Expensive	47	13.43	87	24.86	134	19.14
No habit	12	3.43	14	4.00	26	3.71
Total	350	100.00	350	100.00	700	100.00

Appendix 21: Distribution of Households by Bringal Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	95	27.14	113	32.29	208	29.71
1 day in a month	62	17.71	49	14.00	111	15.86
2 or 3 days in a month	55	15.71	75	21.43	130	18.57
1 or 2 days in a week	101	28.86	82	23.43	183	26.14
3,4,5 days in a week	36	10.29	31	8.86	67	9.57
6 or 7 days in a week	1	0.29			1	0.14

Reasons for not using Bringal

Used	255	72.86	235	67.14	490	70.00
Not available	1	0.29	1	0.29	2	0.29
Expensive	59	16.86	61	17.43	120	17.14
No habit	35	10.00	53	15.14	88	12.57
Total	350	100.00	350	100.00	700	100.00

Appendix 22: Distribution of Households by Ladies Finger Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	180	51.43	212	60.57	392	56.00
1 day in a month	58	16.57	55	15.71	113	16.14
2 or 3 days in a month	51	14.57	58	16.57	109	15.57
1 or 2 days in a week	56	16.00	23	6.57	79	11.29
3,4,5 days in a week	4	1.14	2	0.57	6	0.86
6 or 7 days in a week	1	0.29			1	0.14

Reasons for not using Ladies Finger

Used	170	48.57	137	39.14	307	43.86
Not available	82	23.43	64	18.29	146	20.86
Expensive	76	21.71	124	35.43	200	28.57
No habit	22	6.29	25	7.14	47	6.71
Total	350	100.00	350	100.00	700	100.00

Appendix 23: Distribution of Households by Green Chillies Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	56	16.00	45	12.86	101	14.43
1 day in a month	45	12.86	43	12.29	88	12.57
2 or 3 days in a month	76	21.71	104	29.71	180	25.71
1 or 2 days in a week	97	27.71	123	35.14	220	31.43
3,4,5 days in a week	54	15.43	35	10.00	89	12.71
6 or 7 days in a week	22	6.29			22	3.14

Reasons for not using Green Chillies

Used	294	84.00	302	86.29	596	85.14
Not available	-	-	1	0.29	1	0.14
Expensive	40	11.43	41	11.71	81	11.57
No habit	16	4.57	6	1.71	22	3.14
Total	350	100.00	350	100.00	700	100.00

Appendix 24: Distribution of Households by Tinda Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	198	56.57	263	75.14	461	65.86
1 day in a month	45	12.86	37	10.57	82	11.71
2 or 3 days in a month	53	15.14	36	10.29	89	12.71
1 or 2 days in a week	50	14.29	12	3.43	62	8.86
3,4,5 days in a week	4	1.14	2	0.57	6	0.86

Reasons for not using Tinda

Used	152	43.43	87	24.86	239	34.14
Not available	85	24.29	69	19.71	154	22.00
Expensive	103	29.43	190	54.29	293	41.86
No habit	10	2.86	4	1.14	14	2.00
Total	350	100.00	350	100.00	700	100.00

Appendix 25: Distribution of Households by Pumpkin Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	224	64.00	236	67.43	460	65.71
1 day in a month	58	16.57	61	17.43	119	17.00
2 or 3 days in a month	44	12.57	40	11.43	84	12.00
1 or 2 days in a week	21	6.00	11	3.14	32	4.57
3,4,5 days in a week	1	0.29	1	0.29	2	0.29
6 or 7 days in a week	2	0.57	1	0.29	3	0.43

Reasons for not using Pumpkin

Used	126	36.00	114	32.57	240	34.29
Not available	8	2.29	4	1.14	12	1.71
Expensive	109	31.14	142	40.57	251	35.86
No habit	107	30.57	90	25.71	197	28.14
Total	350	100.00	350	100.00	700	100.00

Appendix 26: Distribution of Households by Parval Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	319	91.14	318	90.86	637	91.00
1 day in a month	10	2.86	10	2.86	20	2.86
2 or 3 days in a month	15	4.29	20	5.71	35	5.00
1 or 2 days in a week	6	1.71	2	0.57	8	1.14

Reasons for not using Parval

Used	31	8.86	32	9.14	63	9.00
Not available	158	45.14	103	29.43	261	37.29
Expensive	39	11.14	15	4.29	54	7.71
No habit	122	34.86	200	57.14	322	46.00
Total	350	100.00	350	100.00	700	100.00

Appendix 27: Distribution of Households by Green Leaves Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	90	25.71	44	12.57	134	19.14
1 day in a month	20	5.71	27	7.71	47	6.71
2 or 3 days in a month	69	19.71	97	27.71	166	23.71
1 or 2 days in a week	73	20.86	110	31.43	183	26.14
3,4,5 days in a week	65	18.57	68	19.43	133	19.00
6 or 7 days in a week	33	9.43	4	1.14	37	5.29

Reasons for not using Green Leaves

Used	260	74.29	306	87.43	566	80.86
Not available	12	3.43			12	1.71
Expensive	77	22.00	37	10.57	114	16.29
No habit	1	0.29	7	2.00	8	1.14
Total	350	100.00	350	100.00	700	100.00

Appendix 28: Distribution of Households by Tomato Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	8	2.29	34	9.71	42	6.00
1 day in a month	9	2.57	15	4.29	24	3.43
2 or 3 days in a month	89	25.43	93	26.57	182	26.00
1 or 2 days in a week	139	39.71	138	39.43	277	39.57
3,4,5 days in a week	68	19.43	57	16.29	125	17.86
6 or 7 days in a week	37	10.57	13	3.71	50	7.14

Reasons for not using Tomato

Used	342	97.71	316	90.29	658	94.00
Expensive	7	2.00	32	9.14	39	5.57
No habit	1	0.29	2	0.57	3	0.43
Total	350	100.00	350	100.00	700	100.00

Appendix 29: Distribution of Households by Onion Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	36	10.29	11	3.14	47	6.71
1 day in a month	4	1.14	7	2.00	11	1.57
2 or 3 days in a month	35	10.00	63	18.00	98	14.00
1 or 2 days in a week	82	23.43	93	26.57	175	25.00
3,4,5 days in a week	78	22.29	95	27.14	173	24.71
6 or 7 days in a week	115	32.86	81	23.14	196	28.00

Reasons for not using Onion

Used	313	89.43	338	96.57	651	93.00
Not available	1	0.29	1	0.29	2	0.29
Expensive	32	9.14	5	1.43	37	5.29
No habit	4	1.14	6	1.71	10	1.43
Total	350	100.00	350	100.00	700	100.00

Appendix 30: Distribution of Households by Cauliflower Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	126	36.00	159	45.43	285	40.71
1 day in a month	69	19.71	65	18.57	134	19.14
2 or 3 days in a month	59	16.86	74	21.14	133	19.00
1 or 2 days in a week	83	23.71	50	14.29	133	19.00
3,4,5 days in a week	11	3.14	2	0.57	13	1.86
6 or 7 days in a week	2	0.57		0.00	2	0.29

Reasons for not using Cauliflower

Used	224	64.00	192	54.86	416	59.43
Not available	20	5.71	6	1.71	26	3.71
Expensive	89	25.43	148	42.29	237	33.86
No habit	17	4.86	4	1.14	21	3.00
Total	350	100.00	350	100.00	700	100.00

Appendix 31: Distribution of Households by White Gourd Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	124	35.43	148	42.29	272	38.86
1 day in a month	70	20.00	69	19.71	139	19.86
2 or 3 days in a month	78	22.29	90	25.71	168	24.00
1 or 2 days in a week	70	20.00	39	11.14	109	15.57
3,4,5 days in a week	8	2.29	4	1.14	12	1.71

Reasons for not using White Gourd

Used	226	64.57	202	57.71	428	61.14
Not available	3	0.86	4	1.14	7	1.00
Expensive	74	21.14	122	34.86	196	28.00
No habit	47	13.43	22	6.29	69	9.86
Total	350	100.00	350	100.00	700	100.00

Appendix 32: Distribution of Households by Other Vegetables Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	214	61.14	302	86.29	516	73.71
1 day in a month	28	8.00	8	2.29	36	5.14
2 or 3 days in a month	39	11.14	21	6.00	60	8.57
1 or 2 days in a week	35	10.00	11	3.14	46	6.57
3,4,5 days in a week	21	6.00	3	0.86	24	3.43
6 or 7 days in a week	13	3.71	5	1.43	18	2.57

Reasons for not using Other Vegetables

Used	135	38.57	48	13.71	183	26.14
Not available	17	4.86	2	0.57	19	2.71
Expensive	48	13.71	8	2.29	56	8.00
No habit	37	10.57	8	2.29	45	6.43
NOR	113	32.29	284	81.14	397	56.71
Total	350	100.00	350	100.00	700	100.00

Appendix 33: Distribution of Households by Banana Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	130	37.14	173	49.43	303	43.29
1 day in a month	78	22.29	81	23.14	159	22.71
2 or 3 days in a month	72	20.57	73	20.86	145	20.71
1 or 2 days in a week	68	19.43	21	6.00	89	12.71
3,4,5 days in a week	2	0.57	2	0.57	4	0.57

Reasons for not using Banana

Used	221	63.14	179	51.14	400	57.14
Not available	2	0.57	9	2.57	11	1.57
Expensive	118	33.71	155	44.29	273	39.00
No habit	9	2.57	7	2.00	16	2.29
Total	350	100.00	350	100.00	700	100.00

Appendix 34: Distribution of Households by Grapes Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	144	41.14	220	62.86	364	52.00
1 day in a month	85	24.29	71	20.29	156	22.29
2 or 3 days in a month	79	22.57	49	14.00	128	18.29
1 or 2 days in a week	42	12.00	9	2.57	51	7.29
3,4,5 days in a week		0.00	1	0.29	1	0.14

Reasons for not using Grapes

Used	205	58.57	129	36.86	334	47.71
Not available	3	0.86	5	1.43	8	1.14
Expensive	137	39.14	208	59.43	345	49.29
No habit	5	1.43	5	1.43	10	1.43
Other (Lack of access)		0.00	3	0.86	3	0.43
Total	350	100.00	350	100.00	700	100.00

Appendix 35: Distribution of Households by Papaya Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	232	66.29	246	70.29	478	68.29
1 day in a month	44	12.57	50	14.29	94	13.43
2 or 3 days in a month	45	12.86	43	12.29	88	12.57
1 or 2 days in a week	23	6.57	10	2.86	33	4.71
3,4,5 days in a week	6	1.71	1	0.29	7	1.00

Reasons for not using Papaya

Used	118	33.71	105	30.00	223	31.86
Not available	5	1.43	18	5.14	23	3.29
Expensive	214	61.14	213	60.86	427	61.00
No habit	13	3.71	14	4.00	27	3.86
Total	350	100.00	350	100.00	700	100.00

Appendix 36: Distribution of Households by Apple Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	322	92.00	336	96.00	658	94.00
1 day in a month	22	6.29	7	2.00	29	4.14
2 or 3 days in a month	5	1.43	5	1.43	10	1.43
1 or 2 days in a week	1	0.29	1	0.29	2	0.29
3,4,5 days in a week	-	-	1	0.29	1	0.14

Reasons for not using Apple

Used	27	7.71	24	6.86	51	7.29
Not available	80	22.86	69	19.71	149	21.29
Expensive	230	65.71	245	70.00	475	67.86
No habit	13	3.71	9	2.57	22	3.14
Other (Lack of access)	-	0.00	3	0.86	3	0.43
Total	350	100.00	350	100.00	700	100.00

Appendix 37: Distribution of Households by Pineapple Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	347	99.14	345	98.57	692	98.86
1 day in a month	2	0.57	4	1.14	6	0.86
2 or 3 days in a month	1	0.29	1	0.29	2	0.29

Reasons for not using Pineapple

Used	3	0.86	5	1.43	8	1.14
Not available	87	24.86	72	20.57	159	22.71
Expensive	243	69.43	258	73.71	501	71.57
No habit	17	4.86	12	3.43	29	4.14
Other (Lack of access)		0.00	3	0.86	3	0.43
Total	350	100.00	350	100.00	700	100.00

Appendix 38: Distribution of Households by Watermelon Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	236	67.43	283	80.86	519	74.14
1 day in a month	39	11.14	32	9.14	71	10.14
2 or 3 days in a month	51	14.57	22	6.29	73	10.43
1 or 2 Days in Week	21	6.00	8	2.29	29	4.14
3,4,5 Days in Week	3	0.86	5	1.43	8	1.14

Reasons for not using Watermelon

Used	117	33.43	67	19.14	184	26.29
Not available	104	29.71	71	20.29	175	25.00
Expensive	115	32.86	197	56.29	312	44.57
No habit	14	4.00	15	4.29	29	4.14
Total	350	100.00	350	100.00	700	100.00

Appendix 39: Distribution of Households by Muskmelon Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	246	70.29	291	83.14	537	76.71
1 day in a month	39	11.14	29	8.29	68	9.71
2 or 3 days in a month	44	12.57	23	6.57	67	9.57
1 or 2 Days in Week	18	5.14	6	1.71	24	3.43
3,4,5 Days in Week	3	0.86	-	-	3	0.43

Reasons for not using Muskmelon

Used	105	30.00	60	17.14	165	23.57
Not available	103	29.43	72	20.57	175	25.00
Expensive	126	36.00	204	58.29	330	47.14
No habit	16	4.57	14	4.00	30	4.29
Total	350	100.00	350	100.00	700	100.00

Appendix 40: Distribution of Households by Sugarcane Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	321	91.71	331	94.57	652	93.14
1 day in a month	12	3.43	13	3.71	25	3.57
2 or 3 days in a month	14	4.00	5	1.43	19	2.71
1 or 2 Days in Week	3	0.86	1	0.29	4	0.57

Reasons for not using Sugarcane

Used	29	8.29	19	5.43	48	6.86
Not available	112	32.00	73	20.86	185	26.43
Expensive	193	55.14	234	66.86	427	61.00
No habit	16	4.57	23	6.57	39	5.57
Other (lack of access)	-	0.00	1	0.29	1	0.14
Total	350	100.00	350	100.00	700	100.00

Appendix 41: Distribution of Households by Syzygium Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	314	89.71	336	96.00	650	92.86
1 day in a month	18	5.14	7	2.00	25	3.57
2 or 3 days in a month	10	2.86	7	2.00	17	2.43
1 or 2 Days in Week	7	2.00			7	1.00
3,4,5 Days in Week	1	0.29			1	0.14

Reasons for not using Syzygium

Used	37	10.57	15	4.29	52	7.43
Not available	104	29.71	72	20.57	176	25.14
Expensive	176	50.29	235	67.14	411	58.71
No habit	33	9.43	28	8.00	61	8.71
Total	350	100.00	350	100.00	700	100.00

Appendix 42: Distribution of Households by Mango Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	229	65.43	310	88.57	539	77.00
1 day in a month	31	8.86	22	6.29	53	7.57
2 or 3 days in a month	47	13.43	17	4.86	64	9.14
1 or 2 Days in Week	40	11.43	1	0.29	41	5.86
3,4,5 Days in Week	3	0.86			3	0.43

Reasons for not using Mango

Used	121	34.57	38	10.86	159	22.71
Not available	81	23.14	70	20.00	151	21.57
Expensive	144	41.14	234	66.86	378	54.00
No habit	4	1.14	5	1.43	9	1.29
Other (lack of access)		0.00	3	0.86	3	0.43
Total	350	100.00	350	100.00	700	100.00

Appendix 43: Distribution of Households by Orange Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	179	51.14	204	58.29	383	54.71
1 day in a month	61	17.43	39	11.14	100	14.29
2 or 3 days in a month	78	22.29	93	26.57	171	24.43
1 or 2 Days in Week	31	8.86	13	3.71	44	6.29
3,4,5 Days in Week	1	0.29	1	0.29	2	0.29

Reasons for not using Orange

Used	170	48.57	144	41.14	314	44.86
Not available	3	0.86	3	0.86	6	0.86
Expensive	168	48.00	197	56.29	365	52.14
No habit	9	2.57	6	1.71	15	2.14
Total	350	100.00	350	100.00	700	100.00

Appendix 44: Distribution of Households by Ziziphus (BER) Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	248	70.86	279	79.71	527	75.29
1 day in a month	24	6.86	19	5.43	43	6.14
2 or 3 days in a month	34	9.71	47	13.43	81	11.57
1 or 2 Days in Week	37	10.57	2	0.57	39	5.57
3,4,5 Days in Week	7	2.00	2	0.57	9	1.29
6 or 7 Days in Week			1	0.29	1	0.14

Reasons for not using Ziziphus (BER)

Used	102	29.14	71	20.29	173	24.71
Not available	145	41.43	73	20.86	218	31.14
Expensive	92	26.29	198	56.57	290	41.43
No habit	11	3.14	8	2.29	19	2.71
Total	350	100.00	350	100.00	700	100.00

Appendix 45: Distribution of Households by Other Fruits Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	341	97.43	327	93.43	668	95.43
1 day in a month	3	0.86	11	3.14	14	2.00
2 or 3 days in a month	5	1.43	11	3.14	16	2.29
1 or 2 Days in Week	1	0.29	1	0.29	2	0.29
Total	350	100.00	350	100.00	700	100.00

Reasons for not using Other Fruits

Used	9	2.57	22	6.29	31	4.43
Not Applicable	341	97.43	328	93.71	669	95.57
Total	350	100.00	350	100.00	700	100.00

Appendix 46: Distribution of Households by Goat Meat Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	298	85.14	313	89.43	611	87.29
1 day in a month	22	6.29	10	2.86	32	4.57
2 or 3 days in a month	24	6.86	19	5.43	43	6.14
1 or 2 Days in Week	6	1.71	8	2.29	14	2.00

Reasons for not using Goat Meat

Used	52	14.86	37	10.57	89	12.71
Not available	1	0.29		0.00	1	0.14
Expensive	7	2.00	11	3.14	18	2.57
No habit	290	82.86	302	86.29	592	84.57
Total	350	100.00	350	100.00	700	100.00

Appendix 47: Distribution of Households by Chicken Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	324	92.57	341	97.43	665	95.00
1 day in a month	16	4.57	3	0.86	19	2.71
2 or 3 days in a month	8	2.29	1	0.29	9	1.29
1 or 2 Days in Week	2	0.57	4	1.14	6	0.86
3,4,5 Days in Week	-	-	1	0.29	1	0.14

Reasons for not using Chicken

Used	27	7.71	10	2.86	37	5.29
Not available	3	0.86	-	-	3	0.43
Expensive	28	8.00	24	6.86	52	7.43
No habit	292	83.43	316	90.29	608	86.86
Total	350	100.00	350	100.00	700	100.00

Appendix 48: Distribution of Households by Other Meat Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	325	92.86	342	97.71	667	95.29
1 day in a month	14	4.00	1	0.29	15	2.14
2 or 3 days in a month	9	2.57		0.00	9	1.29
1 or 2 Days in a Week	2	0.57	6	1.71	8	1.14
6 or 7 Days in a Week		0.00	1	0.29	1	0.14

Reasons for not using Other Meat

Used	26	7.43	9	2.57	35	5.00
Not available	3	0.86		0.00	3	0.43
Expensive	10	2.86	12	3.43	22	3.14
No habit	310	88.57	329	94.00	639	91.29
Other (lack of access)	1	0.29		0.00	1	0.14
Total	350	100.00	350	100.00	700	100.00

Appendix 49: Distribution of Households by Milk and Milk Products Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	12	3.43	65	18.57	77	11.00
1 day in a month	3	0.86	2	0.57	5	0.71
2 or 3 days in a month	3	0.86	19	5.43	22	3.14
1 or 2 Days in a Week	11	3.14	8	2.29	19	2.71
3,4,5 Days in a Week	31	8.86	9	2.57	40	5.71
6 or 7 Days in a Week	290	82.86	247	70.57	537	76.71

Reasons for not using Milk or Milk Product

Used	337	96.29	285	81.43	622	88.86
Expensive	8	2.29	57	16.29	65	9.29
No habit	5	1.43	8	2.29	13	1.86
Total	350	100.00	350	100.00	700	100.00

Appendix 50: Distribution of Households by Eggs Used Per Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	291	83.14	324	92.57	615	87.86
1 day in a month	38	10.86	16	4.57	54	7.71
2 or 3 days in a month	17	4.86	7	2.00	24	3.43
1 or 2 Days in a Week	4	1.14	3	0.86	7	1.00
Total	350	100.00	350	100.00	700	100.00

Reasons for not using Eggs

Used	59	16.86	26	7.43	85	12.14
Not Available	1	0.29	-	-	1	0.14
Expensive	4	1.14	14	4.00	18	2.57
No habit	286	81.71	310	88.57	596	85.14
Total	350	100.00	350	100.00	700	100.00

Appendix 51: Distribution of Households by Fish Used in the Past Month

Item	More Exposed		Less Exposed		Total	
	No.	%	No.	%	No.	%
Not used	297	84.86	333	95.14	630	90.00
1 day in a month	43	12.29	9	2.57	52	7.43
2 or 3 days in a month	10	2.86	7	2.00	17	2.43
1 or 2 Days in a Week	-	-	1	0.29	1	0.14
Total	350	100.00	350	100.00	700	100.00

Reasons for not using Fish

Used	52	14.86	17	4.86	69	9.86
Not Available	4	1.14	1	0.29	5	0.71
Expensive	3	0.86	10	2.86	13	1.86
No habit	291	83.14	322	92.00	613	87.57
Total	350	100.00	350	100.00	700	100.00

Food Trade and Nutrition (FTN) Coalition -ASIA

Food Trade and Nutrition Coalition (FTN Coalition) is a network of organisations in Africa, Asia, Europe and Latin America: ABRANDH, AIPE, AIS, Beacon, CECOEDECON, CEC, Cioec, CIN, CoU-Teddo, ICCO (associated with Aprodev), Inesc, Kerkinactie, PAIRVI, CEC, SANSAD and Wemos. FTN Coalition members are drawn from civil society organisations with a special interest in food, nutrition, trade and health issues: consumer organisations, farmers' organisations, organizations working on rural development, groups of the people's health movement, groups working on the promotion of healthy nutrition, etc.

FTN believes that in order to combat malnutrition and promote food and nutrition security, actions are required to be taken, in addition to global level efforts, at the national and regional levels as this is where the key developments are taking place both in pursuance of multilateral agreements such as WTO as well as under regional free trade agreements like SAFTA and Indo-ASEAN FTA. FTN has strived to add the regional and national dimension to the global campaign especially in South and S-E Asia.

The FTN aims to establish and broad base its presence at Asian level (South and S E Asia). The broad basing of the FTN Asia is centered on the belief that it would be able to strengthen partnerships established thus far, and forge partnership to support regional initiatives that seek to protect the interests of small farmers and consumers.

The FTN Coalition works for the realization of the Universal Right to adequate food and the Right to health. In particular, FTN work relates to the international trade agreements of the WTO and the EU. The FTN Coalition devotes special attention to the consequences that various WTO agreements have for the fight against poverty and for the availability, affordability and quality of food for all. It believes international trade has an important contribution to make towards each country's development. But trade is not an end in itself. The Coalition strives for a future in which all countries can implement their own food and nutrition policies in which all people profit from international trade.

The principles of **FTN Coalition** are based on achieving autonomy for the farmer and peasant control over productive and reproductive resources, local consumption, and sovereignty of nations to pursue policies that address local needs rather than international trade laws and the protection of valuable natural resources.

*“TRADE INCREASES THE WEALTH AND GLORY OF A
COUNTRY; BUT ITS REAL STRENGTH
AND STAMINA ARE TO BE LOOKED FROM
AMONG THE CULTIVATORS OF THE LAND”.*

Justice V.S. Dave



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